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Management Consulting

Before the House Committee on Transportation and Infrastructure, Subcommittee on Railroads

Subcommmittee on Railroads

Statement of
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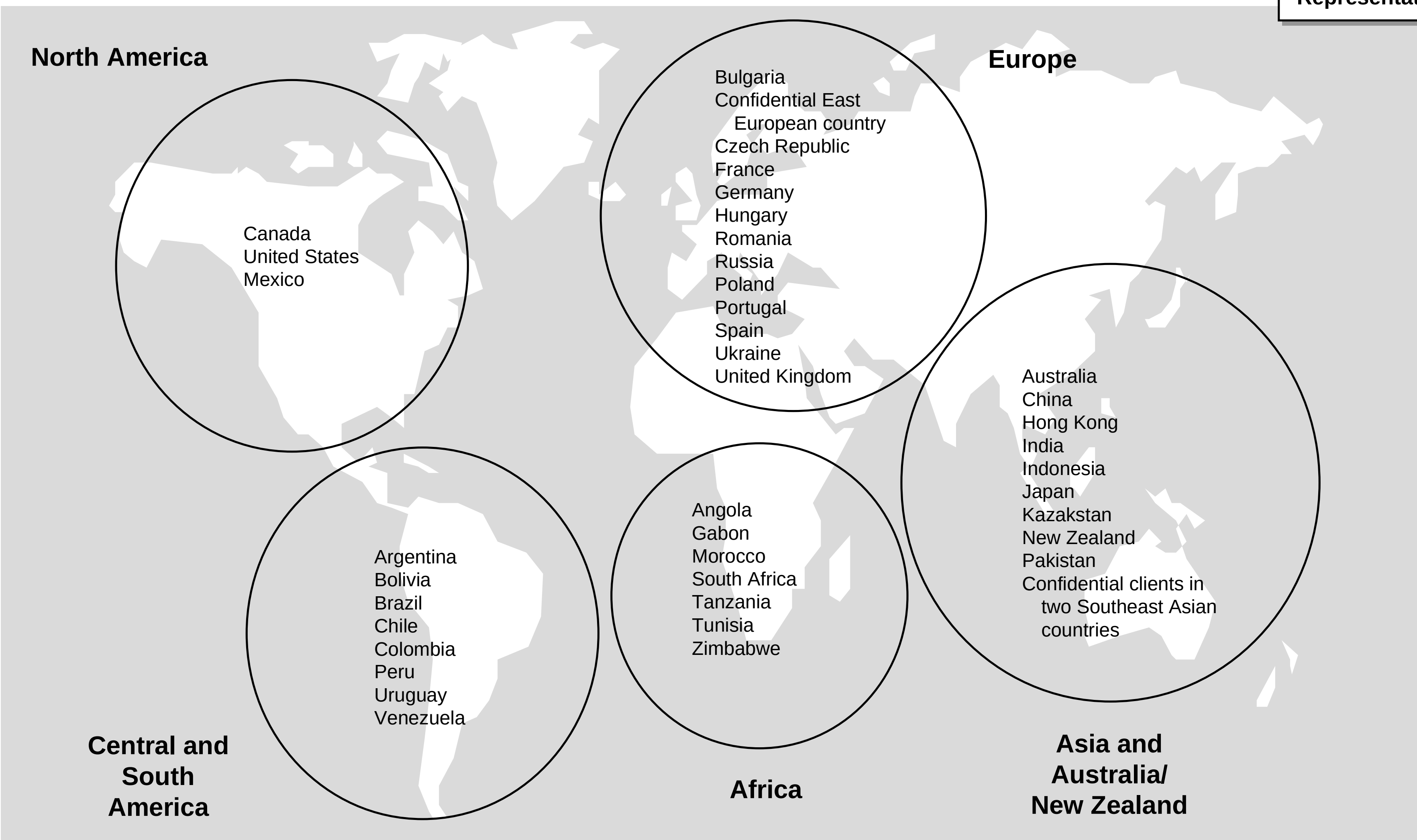
Contents

Mercer based its comments and assumptions for today's hearing on benchmarks and analysis it has conducted in examining the role and extent of private sector participation in transportation and other asset-intensive industries railways through out the world.

International Benchmarks
• Consideration of effects of privatization on international rail systems: – Operating cost savings – Traffic growth – Productivity increases – Sources and timing of privatization effects • Overview of non-rail public asset privatizations • Learnings from benchmarks of comparable rail systems for: – Operating cost per unit – Capital investments per unit – Productivity growth – Factors impacting growth of operating costs

Mercer has worked with governments and operating companies around the world operating in all types of market environments, from heavily regulated and state-controlled through various stages of deregulation to unrestricted market competition.

Representative



Mercer's experience with private involvement in international rail systems supports the following findings:

- International examples of privatization of rail and other low-tech assets demonstrate operating cost savings ranging from 3 percent to 50 percent in the first three years of private operation.
- US examples of outsourcing to private transportation operators show annual operating cost savings in excess of 30 percent.
- Recent Mercer analysis of a European passenger rail system revealed potential cost savings from privatization of infrastructure operations of 9-11 percent. Because this system is newer and more efficient than Amtrak, it is likely that Amtrak could achieve even greater savings from a private-sector infrastructure operator.

In evaluating post-privatization operating cost savings, Mercer typically considers three major questions.

HOW MUCH?

What were operating savings in comparable cases?

- Benchmarks for:
  - International rail privatizations
  - Other transport privatizations and outsourcing examples
  - Other public asset privatizations

WHEN?

When did the savings occur?

- Examples of:
  - First year cost cuts
  - Gradual turnaround programs aimed at step-by-step cost reduction

HOW?

How were operating savings achieved?

- Description of:
  - Turnaround plan for the first years of operation
  - Incremental ongoing productivity impact

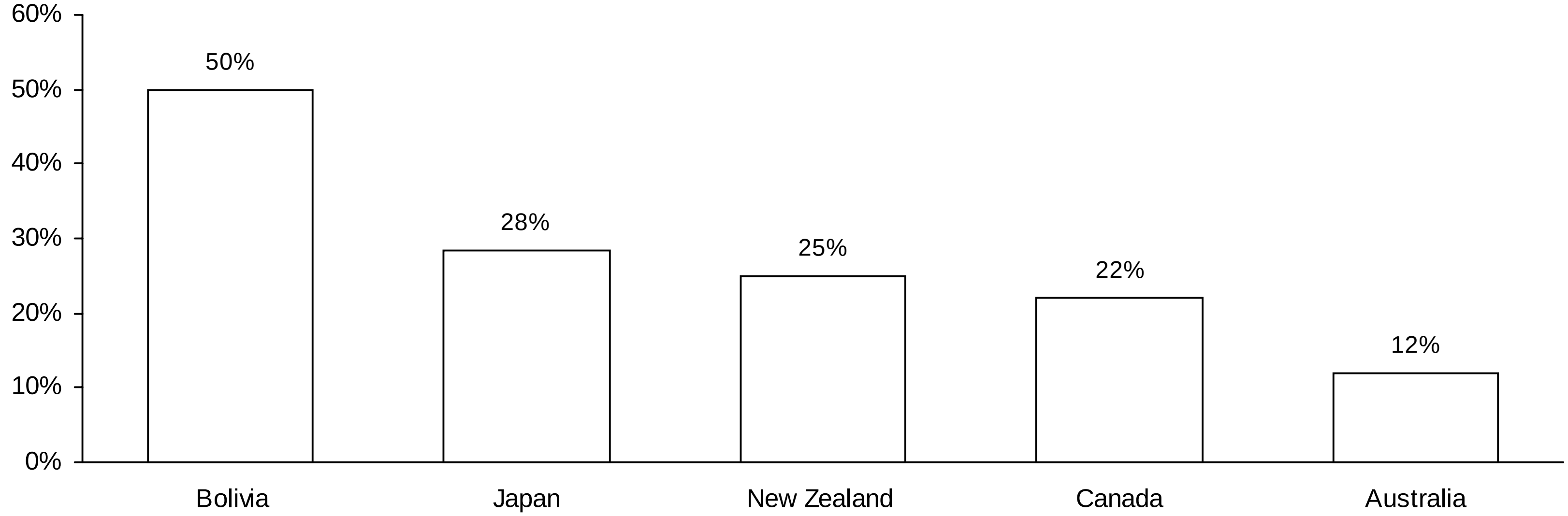
Achievable cost savings from rail privatization depend on the characteristics of the assets involved.

Cost Savings Potential

	Low		*High*
Potential to Increase Current Labor Efficiency	• High level of outsourcing • High labor productivity compared to industry benchmarks	• Low labor productivity • Some government constraints on labor reductions	• Low level of outsourcing • Low labor productivity • No government constraints on labor reductions
Age of Asset	• New asset (0-15 years)	• Medium age of asset (15-30 years old)	• Asset in steady state (over 30 years old)
Portion of Asset Privatized	• Small part of operating unit	• Stand-alone operating unit (maintenance facilities; all infrastructure)	• Entire asset

Rail companies have achieved significant savings in operating expenses as a result of privatization.

International Rail Privatizations:
Calculated Opex Savings[1] of First Three Years of Private Operation
(based on per-unit data)



Name of Railroad:	**FCA**	**Japan Rail**	**TranzRail**	**Canadian National**	**Australian Southern**
Year of Privatization:	**1996**	**1987**	**1993**	**1995**	**1997**
Mode[2]:	**F/P**	**F/P**	**F/P**	**F**	**F**

Notes: [1]Efficiency savings are calculated as a decrease in operating costs in constant currency per unit of output (traffic units: passenger-miles plus ton-miles).
[2]F: Freight; P: Passenger.
Source: World Bank data; Industry reports; Mercer analysis.

Operating cost benchmarks: Efficiency savings from outsourcing

Railroads and governments across the globe have taken advantage of the efficiencies gained from outsourcing.

"Docklands Light Railways Ltd.'s **public subsidy will be reduced by 24%** during the franchise period (1997-2004)."

"Average **operating cost** per passenger km **decreased by 37%** from 1985 (pre-privatization) to 1995 (post privatization)."

"Public Sector Operator, Statens Jarnvagar, in three years (1988-1991) **turned a $48M loss into a $37M profit**."

"From 1992-1995, Stockholm Transit achieved **7.3% savings annually** by contracting out 59% of their operations[1]."

Source: JR-West -Changing Trains "Railway Reform & the Role of Competition", 1999; Docklands - PR Newswire; SJ-ATCO Rail Privatization 0ct 1992; SL- 5th international conference on competition and ownership in passenger transport, Leeds May 1997.

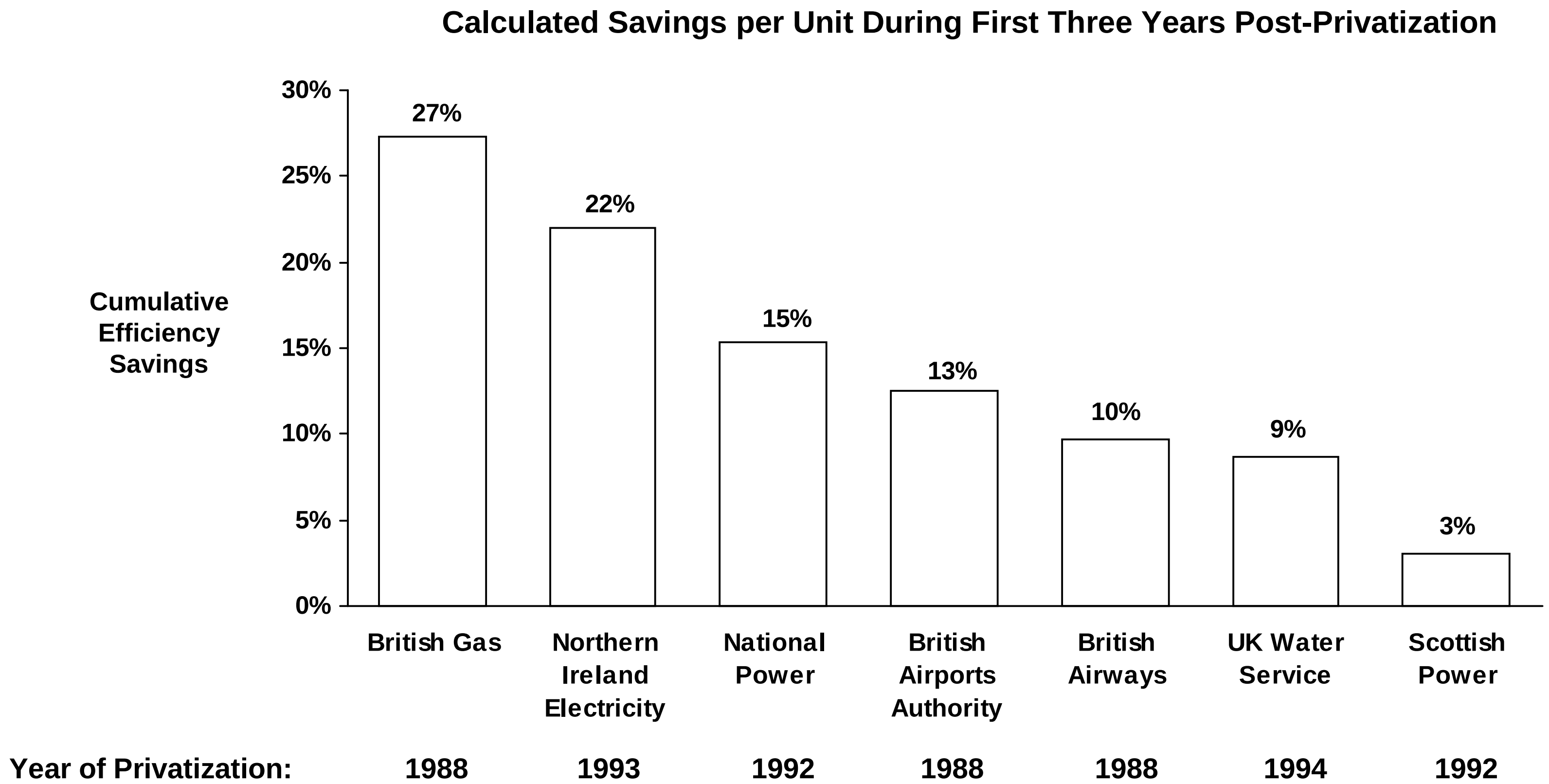
[1] Operations include both rail and bus, both of which were outsourced 59 percent respectively.

Bus companies have been able to achieve significant annual efficiency savings by outsourcing some or all of their operations and maintenance to outside contractors.

	Years of contract	Outsourced work as % of total maintenance cost	Annual efficiency savings
Las Vegas, NV	1993-1994	100%	**33%**
Indianapolis, IN	1994-1996	70%	**14%**
Auckland, New Zealand	1990-1996	100%	**8%**
Copenhagen, Denmark	1989-1996	56%	**4%**
Denver, CO	1988-1995	25%	**3%**

Source: International Conference on Competition and Ownership in Passenger Transport. Leeds May 1997.

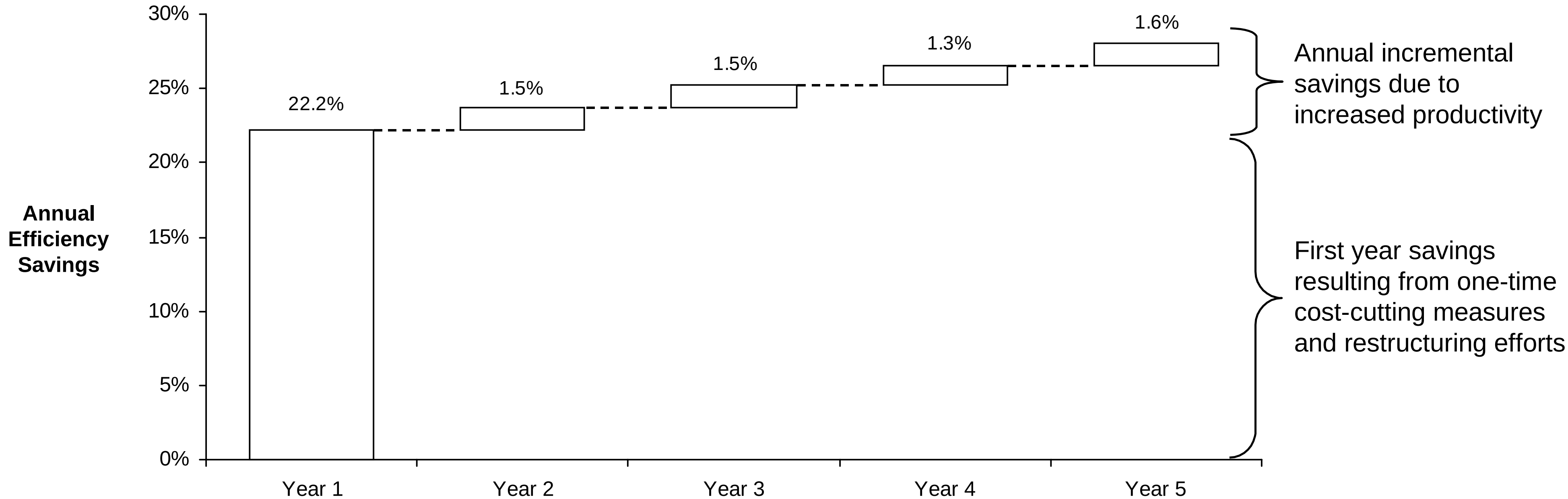
UK privatizations of public assets have demonstrated high efficiency savings during the first three years of private operation.



Source: Review of Railtrack Efficiency – Report for the Office of the Rail Regulator by Europe Economics, 1999.
Note: Savings calculated based on real unit operating expenditure (RUOE). Unit measures are calculated by dividing operating expenditure by the most appropriate output measure available.

Timing of efficiency savings is driven by management decisions of the private operator and differs greatly among the cases examined.

New Zealand Rail Privatization Efficiency Savings
(% cost reduction per unit of output[1] in constant currency)



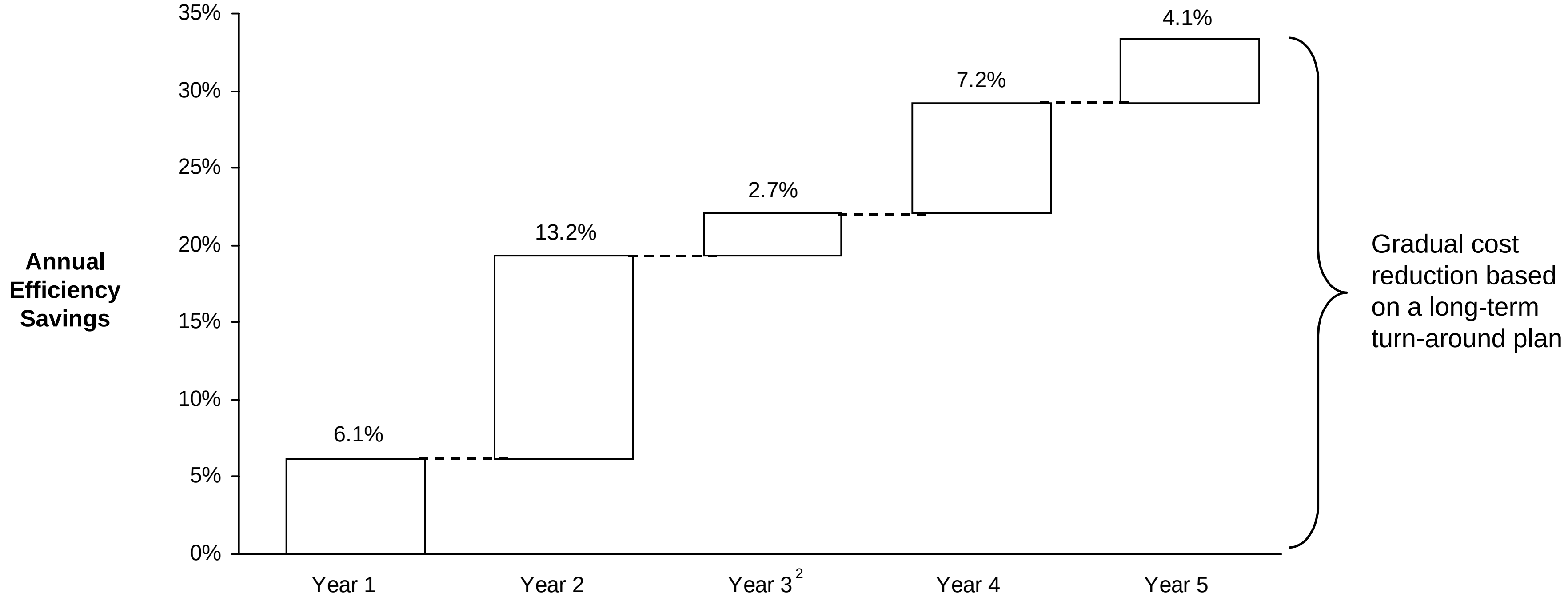
Name of System: **New Zealand Rail (TranzRail)**
Year of Privatization: **1993**
Mode: **Freight and Passenger**

Source: World Bank data; analyst reports; Mercer analysis.
[1]Unit of output used is traffic units (annual passenger-miles plus annual ton-miles).

Canadian National Railway achieved cumulative operating savings of 33 percent on a unit cost basis through a gradual turnaround program over the first five years after privatization.

Canadian National Railway Efficiency Savings

(% cost reduction per unit of output[1] in constant currency)



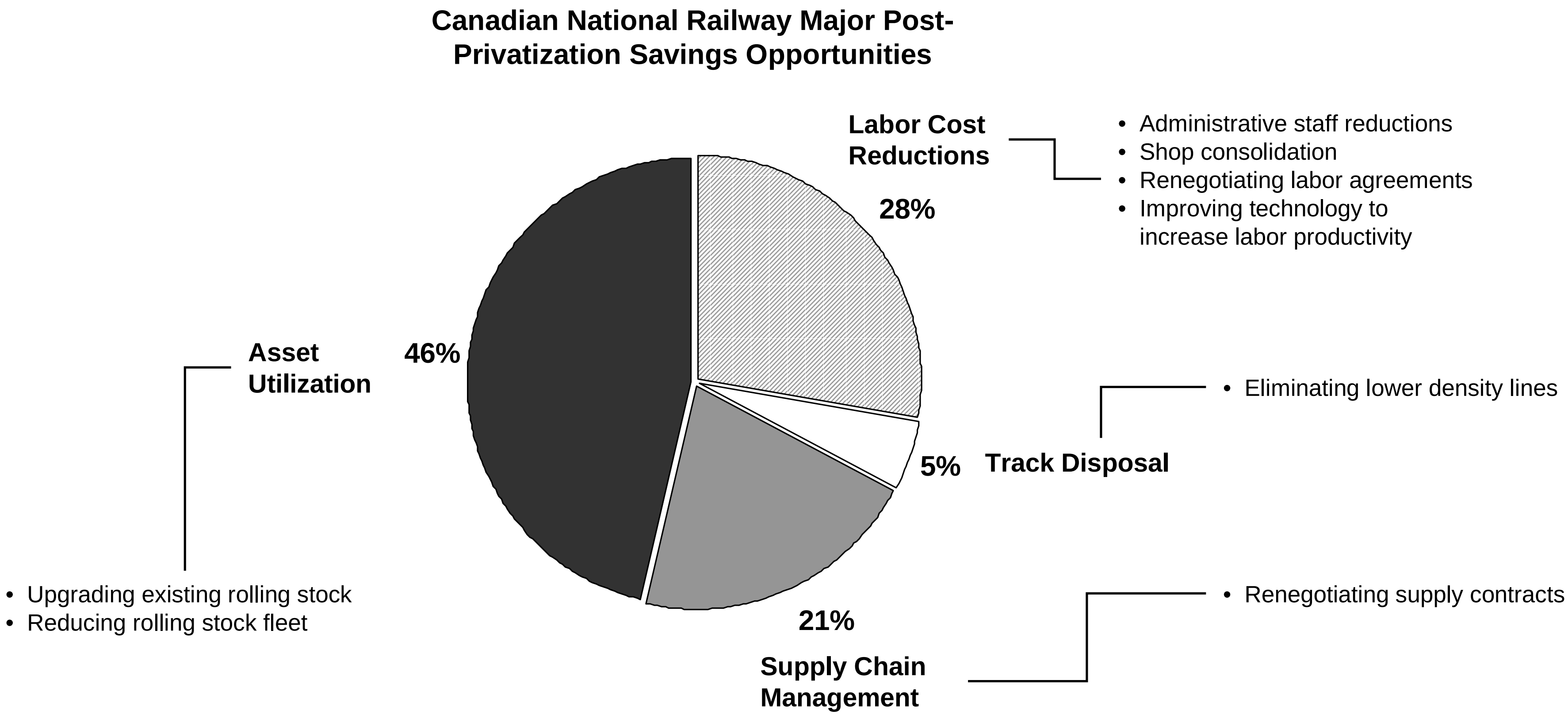
Name of System:	**Canadian National Railway Company**
Year of Privatization:	**1995**
Mode:	**Freight**

Source: World Bank data; analyst reports; Mercer analysis.

[1]Unit of output used is traffic units (annual passenger-miles plus annual ton-miles).

[2]Year 3 data (1998) does not include one-time special charge for restructuring costs booked for that year.

Canadian National Railway's turnaround plan after privatization in 1995 was based on four major saving opportunities.

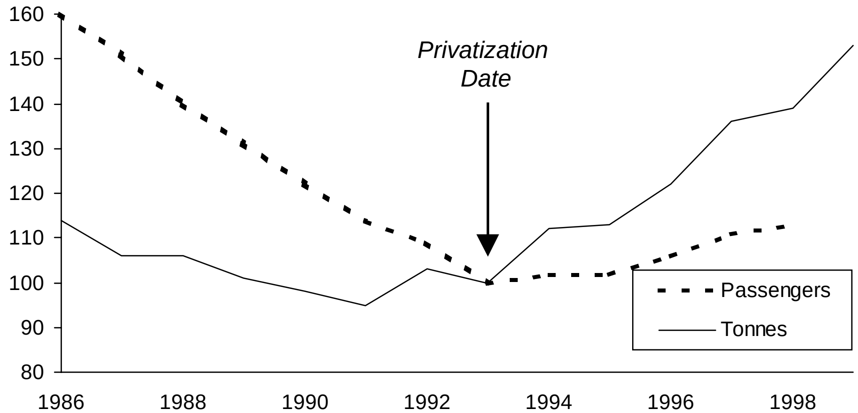


- **Savings of $ 208 million were achieved during the first two years after privatization.**
- **Savings of over 33 percent were achieved on a per-unit cost basis (operating costs per ton-mile) after five years of private operation.**

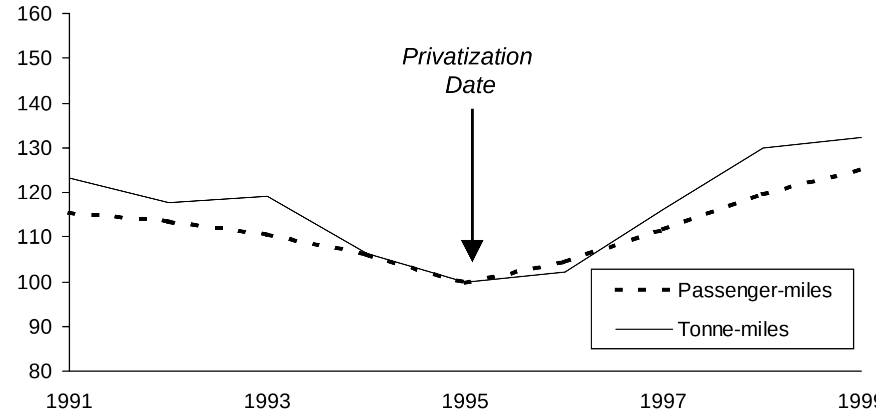
Source: Salomon Brothers Report, 1996; CN annual reports.

International privatization examples show a strong trend of increasing traffic over a line after privatization. This growth can be attributed to the superior marketing efforts of the private operators and better line maintenance.

Comparative Analysis of Traffic Data for New Zealand Rail (TranzRail)
(1993=100)



Comparative Analysis of Traffic Data for British Rail (Railtrack)
(1995=100)



	Before Privatization *CAGR 1986-1993*	**After Privatization** *CAGR 1993-1999*	**Total Growth** *1993- 1999*
Passengers	-6.6%	2.5%	13.1%
Freight Tonnes	-1.0%	7.3%	74.0%

	Before Privatization *CAGR 1991-1995*	**After Privatization** *CAGR 1995-1999*	**Total Growth** *1995- 1999*
Passenger-km	-3.6%	5.8%	25.3%
Tonne-km	-5.1%	7.2%	32.3%

Source: World Bank; analyst reports; annual reports.

In Mercer's view, a wide range of private-sector companies today possess the capability to provide outsourced maintenance, infrastructure services, and operations for intercity passenger services.

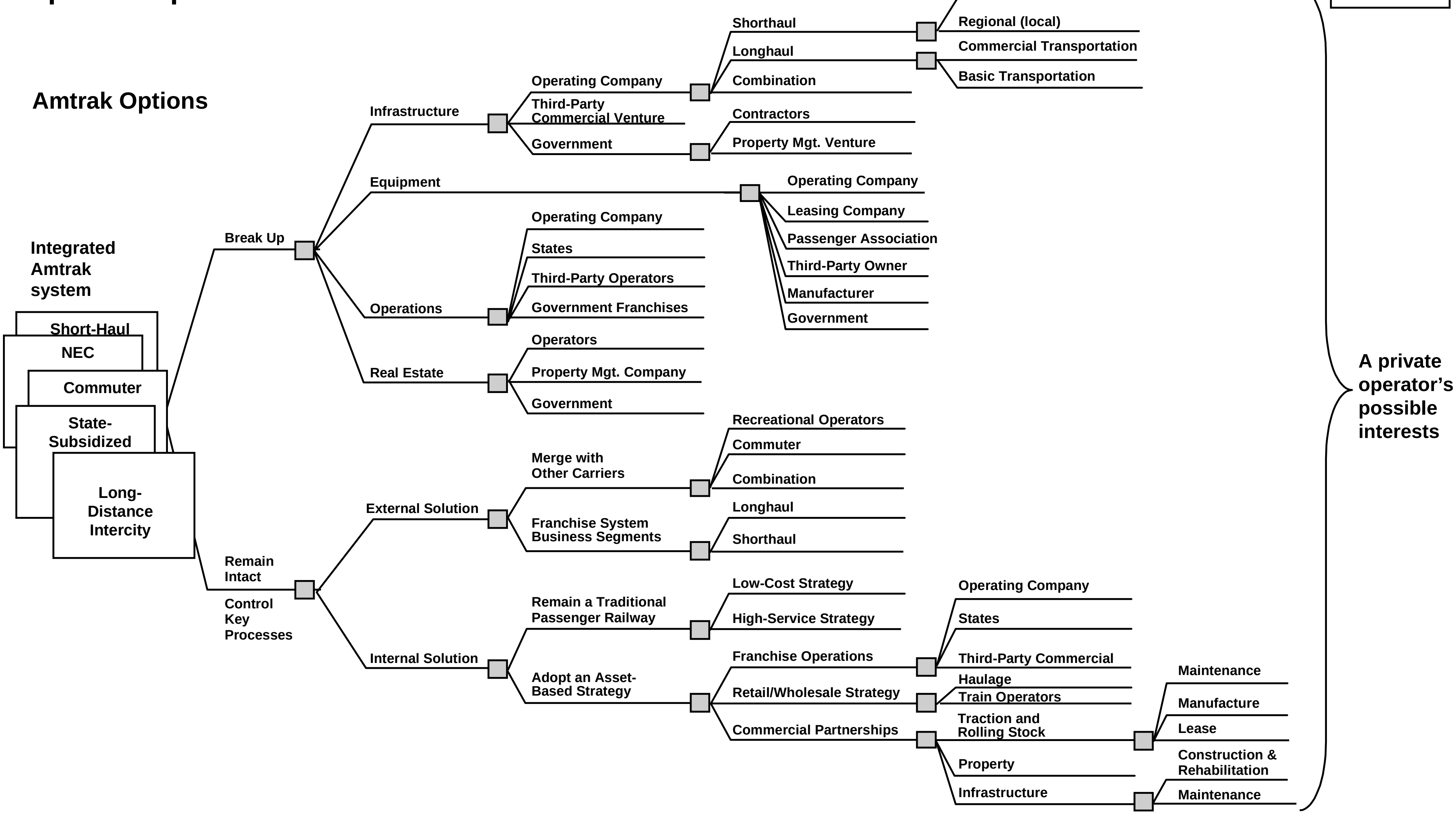
Representative List

Alstom - Rolling stock and infrastructure design, build, maintenance and operation
Amec - UK rail infrastructure maintenance specialist
Amey Railways - Planned management, maintenance, renewal and repair of railway infrastructure
Angel - UK Rosco (rolling stock operating lessor); also operates internationally
Arriva - UK train and bus operator; concessions in UK, Netherlands, Denmark, Portugal
A-Train AB - Consortium formed to finance, build and operate Stockholm airport link
Balfour Beatty Rail - Design, production, supply and maintenance of railway infrastructure
Bechtel - Project management, engineering consultancy
Bombardier/ADtranz - Rolling stock: manufacture, operations and maintenance; Rail infrastructure: operations, signalling, systems, engineering
Brown & Root - Infrastructure design, construction and operations
Connex - French train and bus operator; concessions in UK, Germany, Sweden, Australia
Eurotunnel - Owns, operates and maintains the Channel Tunnel and its railway infrastructure
First Engineering - Railway infrastructure maintenance and repair
Fluor Daniel - Specializes in infrastructure construction and maintenance
First Group - UK train and bus operator; concessions in UK, Netherlands; US school bus operator
GT Railway Maintenance - Maintenance, repair and renewal of railway infrastructure
Herzog - Focuses on commuter rail operations
Hochtief - German infrastructure construction and maintenance company; also involved in airport management
HSBC Leasing - UK Rosco (rolling stock operating lessor)
Jarvis Rail - Railway facility maintenance
Kansas City Southern Industries - Multi-railroad holding company
Max Bögl Company Group - Development , production and installation of railway infrastructure
National Express - UK train and bus operator; concessions in UK, Australia, part-operator of Eurostar high-speed service; US school bus operator
NILES-SIMMONS - Development and production for infrastructure maintenance
Porterbrook - UK Rosco (rolling stock operating lessor); also involved in Australia, Denmark
Development Corp. - Multi-railroad holding company
Serco - Infrastructure and communications and control systems
Sersa - Swiss rail infrastructure design, upgrade and maintenance specialist
Siemens AG - Vertically integrated projects including construction portion
SNCF- Transport operator and infrastructure management, maintenance, & renewal
Stagecoach/Virgin - UK train and bus operator; concessions in UK, Sweden, Portugal, NZ, Hong Kong; owns Coach USA
Sea Containers/GNER - train and ferry operator; operates high-speed concession in UK and tourist train services (Orient Express, Australia, Peru)
Transdev - French bus and light rail operator; concessions in Australia, UK, Poland
Transfield - Infrastructure construction and maintenance
Union Pacific - US Class I Railroad
VIA GTi - French train and bus operator; concessions in France, UK, Germany, Spain
Washington Group - Infrastructure construction and maintenance

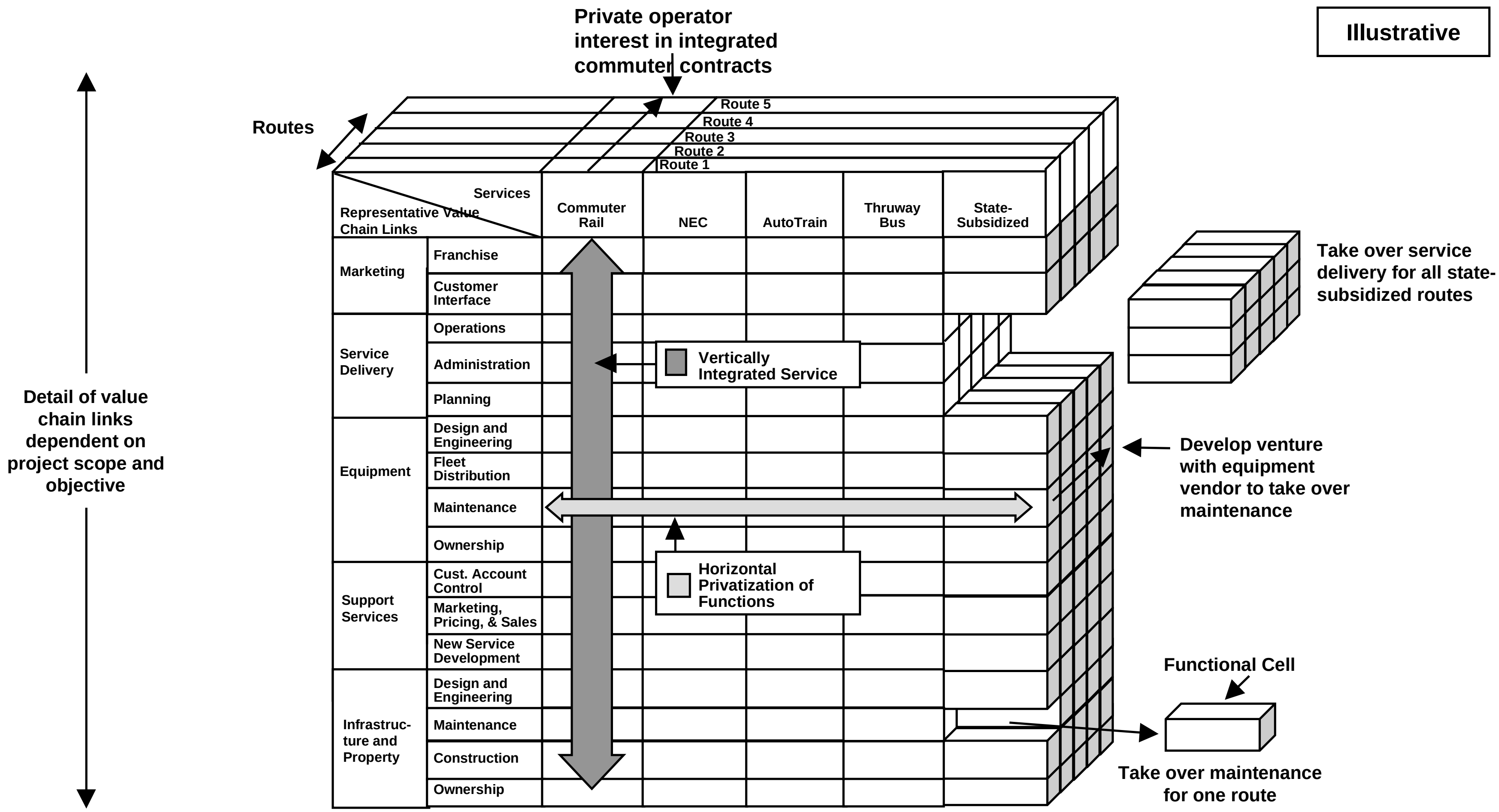
Contents

Amtrak's assets and services offer a full range of bundled and unbundled opportunities for a private operator.

Illustrative



Unbundling Amtrak's service offerings could also help define operating and asset transactions where a private operator could partner with Amtrak as part of a comprehensive restructuring program.



A private operator could operate some services as a franchise of Amtrak; or as a supplier of outsourced services.

Approaches to developing opportunities: Unbundling

Cell-by-cell value chain analysis would be needed to identify areas where a private operator could introduce new levels of performance improvement.

Illustrative

Summarized Rail Service Value Chain

Representative value chain links	Business	Portfolio of services to be privatized	Amtrak	Component unbundled/ outsourced
Operations	Station/terminal	●	○	Y
	Train crew	●	○	Y
	Scheduling	●	○	Y
Traction and rolling stock	Design and engineering	●	○	Y
	Fleet distribution	●	○	Y
	Maintenance	●	○	Y
	Ownership	●	○	Y
Support services	Customer account control	●	○	Y
	Marketing, pricing, and sales	●	○	Y
	New service development	●	○	Y
Infrastructure and property	Design and engineering	○	●	N
	Maintenance	●	○	Y
	Construction	○	●	N
	Ownership	○	●	N

Key:

- ● More Efficient
- ○ Less Efficient
- Y Yes
- N No

Opportunities for private operators

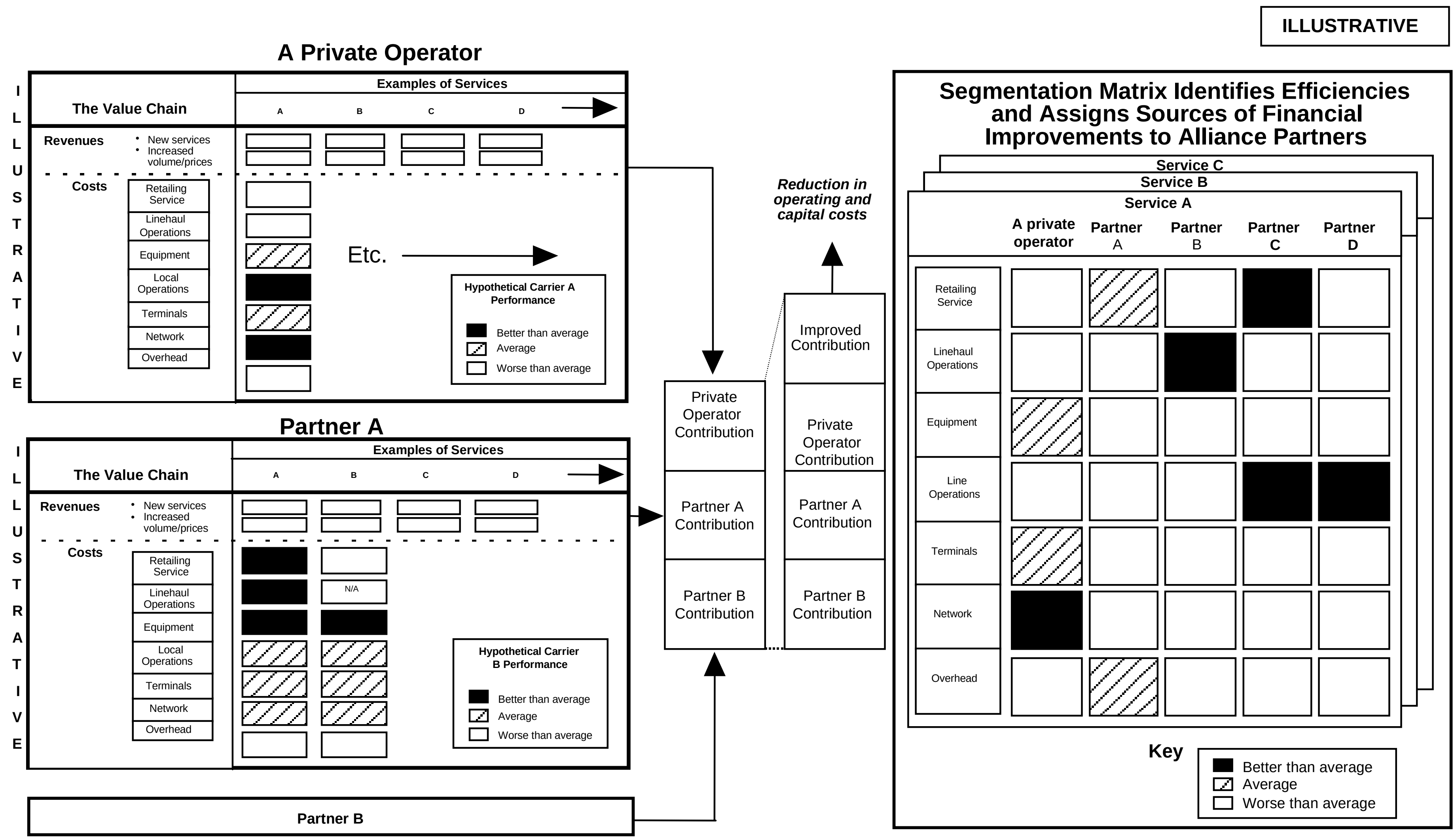
A private operator could have several potential options for entering the U.S. market. For example:

Point of Entry / Segments	Long Distance	NEC	Shorthaul	State Subsidized 403(b)	Commuter	Other
Become part of an Amtrak solution	X	X	X	X	X	X
Work with States to replace Amtrak on State-supported services			X	X		X
Work with U.S. DOT/Congress to operate the core network	X	X				
Approach private parties (freight railroads, suppliers, etc.)	X	X	X	X	X	X
Approach selected transit authorities					X	X

A variety of strategic partners could be available if partnering is shown to be beneficial to the interested private operator.

- **Independent contractors** have already established market presence (e.g., Herzog for Miami Tri-Rail service and Dallas Area Rapid Transit [DART]; Bombardier for equipment).
- Several of the largest **Class I freight railroads** have passenger subsidiaries currently operating commuter services (e.g., BNSF and UP for Chicago METRA service).
- **Regional railroads** (e.g., Anacostia & Pacific), through their entrepreneurial and innovative approaches, have pursued commuter service contracts in competition with Amtrak.
- Some **commuter authorities** that operate their own passenger services today could be open to expanding to other municipal areas.
- **Airlines** have considered obtaining rail routes or have entered into partnering programs (e.g., frequent flyer miles for rail travel) as competitive strategies.
  - NEC and linked commuter lines represent a significant customer base.
- Other companies (e.g., electric utilites) are interested in acquiring electric power distribution rights on the NEC.

Alliances can be used to the establish the set of relationships that maximizes long-term value by allocating functions to the most efficient provider or partner.



Established international private operators could bring several key strengths to the U.S. passenger rail market.

- Established, proven, successful relationships with public entities
- Track record of excellence and service in several different transportation modes
- Established, independent, third-party operator
- Solid safety record
- Existing presence in North America in other sectors (e.g., utilities, European operators such as Stagecoach)
- Highly regarded staff with appropriate training programs and experienced management
- Scale and in some cases 100-year histories of operating passenger services for national railway operations (e.g., CGEA, Connex)

Contents

Since multiple decision makers and stakeholders would be involved in any private operator entry strategy for different services, attracting qualified world class interest will require a clear and transparent contracting and transaction process. For example:

Illustrative

Stakeholder \ Segment	Long Distance	NEC	Shorthaul	State Subsidized	Commuter	Other
Amtrak Board	◕	◕	◔	◔	◔	◑
State Departments of Transportation	◔	○	●	●	◑	○
State elected officials	◔	◑	●	●	◑	○
U.S. DOT	●	●	◔	◔	○	○
U.S. House Committee on Transportation and Infrastructure	●	●	◑	◑	◑	◑
U.S. Senate Committee on Commerce	●	●	◑	◑	◑	◑
Local transit authorities	○	○	○	○	●	○
Municipal officials	◔	◔	◔	◔	●	○
Private sector	◔	◔	◔	◔	◔	◑

Key:

High focus ●

↑

○ Limited or no influence

The relative interest of each decision maker would have to be integrated into one single point of private operator contact.

A comprehensive private operator strategy could be developed that incorporates communication with federal, state and local officials, economic analysis, and proactive actions for change.

Illustrative

Example of Potential Process for Replacing Amtrak as an Operator of State-Subsidized Service

Phase I → **Go/ No Go** → **Phase II** → **Go/ No Go** → **Phase III** → **Go/ No Go** → **Phase IV**

Phase I

- Identify Amtrak performance gaps/ inefficiencies
- Analyze market
- Private operator analyzes cost of providing existing service
  - Amtrak partnership?
  - Proceed independently?
  - Identify potential partners?
- Develop gap-closing strategies
- Identify assets and resources required for the service

Go/ No Go

Phase II

- Develop initial presentation to selected State DOTs to learn about current service and determine interest
- Brief key State officials
- Brief key elected Congressional officials
- Meet with key freight railroads (ROW owners)
- Meet with possible partners
- Reevaluate feasibility

Go/ No Go

Phase III

- Modify and select best approach
  - With Amtrak?
  - Approach potential partners?
  - Independently?
  - Other?
- Continue Federal and State communication

Go/ No Go

Phase IV

- Develop proposal to State
- Negotiate with owners of ROWs
- Continue Federal and State communication and contact
- Negotiate contract
- Mobilization and implementation

Positioning a private operator to replace Amtrak on any commuter contract will likely follow an awareness-building stage, and then participation in a transparent competitive bidding process.

Illustrative

Example of Potential Process for Response to Public Bid for Contract Commuter Service

Phase I

- Begin to build an awareness of private operator's capabilities
- Identify target commuter system and obtain RFP
- Develop presentation to State DOTs and transit authorities to determine interest in replacing Amtrak
- Meet with infrastructure owners
- Meet with labor unions and other representatives

Go/ No Go

Phase II

- Review contract RFP and proposed contract
- Analyze cost of providing existing service
- Identify assets and resources required for the service
- Identify performance gaps in Amtrak's existing strategy
- Identify gap-closing strategies
- Develop detailed operating plan and projections

Go/ No Go

Phase III

- Develop proposal for public authorities
- Negotiate contracts
- Mobilization and implementation

Possible next steps to establish private operator interest

1. Determine private operator's level of interest and initial areas of focus
   – Screening criteria for transactions
   – Timeline for transactions
2. Profile opportunities supported by high-level analysis
3. Screen opportunities and prioritize most attractive options
4. Conduct detailed analysis of most attractive options
5. Develop transaction implementation plan
6. Mobilize and develop integration plan

Mercer suggests a three-phase process that could begin to attract private operator interest in a North American entry.

Possible next steps to establish private operator interest

Phase I: Evaluation of private operator interest to operate selected Amtrak Services

- Establish screening criteria and timeline for transactions.
- A private operator's options to operate Amtrak services could cover a broad spectrum of potential relationships, ranging from a fairly straightforward franchising relationship under which Amtrak would retain some control (and risk) for long-term operation, to a displacement under which the private operator would assume a much higher degree of control (and risk) for some or all of Amtrak operations.
- Also along the spectrum lie more complex contractual and alliance arrangements including unbundling of different groups of Amtrak assets and services over which a private operator could selectively assume control.
- In this phase, US policy makers would apply the market structure assessment techniques to lay out the full range of transaction options for the private operator. It would be necessary to quantify the financial impacts of the options to identify the qualitative (e.g., strategic) benefits for each party. It would be important to identify the key constituencies for any transaction (including potential competitors/partners) and make a preliminary assessment of what their major interests – pro or con – are likely to be, and apply the private operator's screening criteria.
- At the end of the first phase, interested private operators would then have a clear indication of whether any profitable commercial options exist and what the likely form for a transaction for those options would be. If a sustainable commercial structure for one or more transactions cannot be identified for private operators, or there are legal or structural impediments that seem insurmountable, then further efforts could be halted.

Phase II: Development of actual preliminary private interests

- Party representing Amtrak's interests would prepare detailed transaction structures for any transactions that the Phase I work indicates would provide superior standalone or synergistic benefits.

- For example, a "wet lease" type of approach could likely be proposed and negotiated directly with Amtrak as a franchiser, whereas the acquisition of total control of the operation would likely need to be negotiated with the DOT. For this phase, the private operator team would likely be joined by legal and contracting experts.

Phase III: Implementation and execution of public/private venture

- The transition following a successful transaction is the critical period for ensuring that the anticipated value is fully captured. The private operator would employ its in-depth knowledge of passenger rail operations and services, in conjunction with its post-merger planning expertise, to assist with the transfer of Amtrak services and the start-up of operations.

Contents

Both private and state-owned railways worldwide face a changing business environment. The drivers of change and railway responses have created a private operator industry.

Railway industry issues

- Unsatisfactory financial returns
- Poor asset productivity
- Need for significant capital expenditures
- Changing competitive dynamics
- Changing relationship with suppliers
- Changing customer requirements
- Change in national and international regulation
- Labor pressures
- Introduction of new technology
- Form of restructuring:
  - For national railways
    - Franchise
    - Commercialize
    - Privatize
  - For private railways
    - Unbundle rights, services and assets

Railway Repositioning

Typical railway position

- Pressure to improve financial performance and reduce subsidies
- Pressure to demonstrate adequate return on public invested capital visa vis competing uses
- Strong competition from road haulers
- Pressure on yields
- Need to structure and implement management and labor reductions
- Strict service commitments to key partners/governments/customers
- Commitment to maintain fixed plant to more exacting standards
- Pressure to offer new services
- Organizational inertia
- Transition to market-driven, customer orientation

A decade of liberalization in Europe has produced an environment where restructuring has supported the growth of new operators.

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Directive 91/440

Directives 95/18 + 19

Directives 2001/12 -14

Phases of liberalization

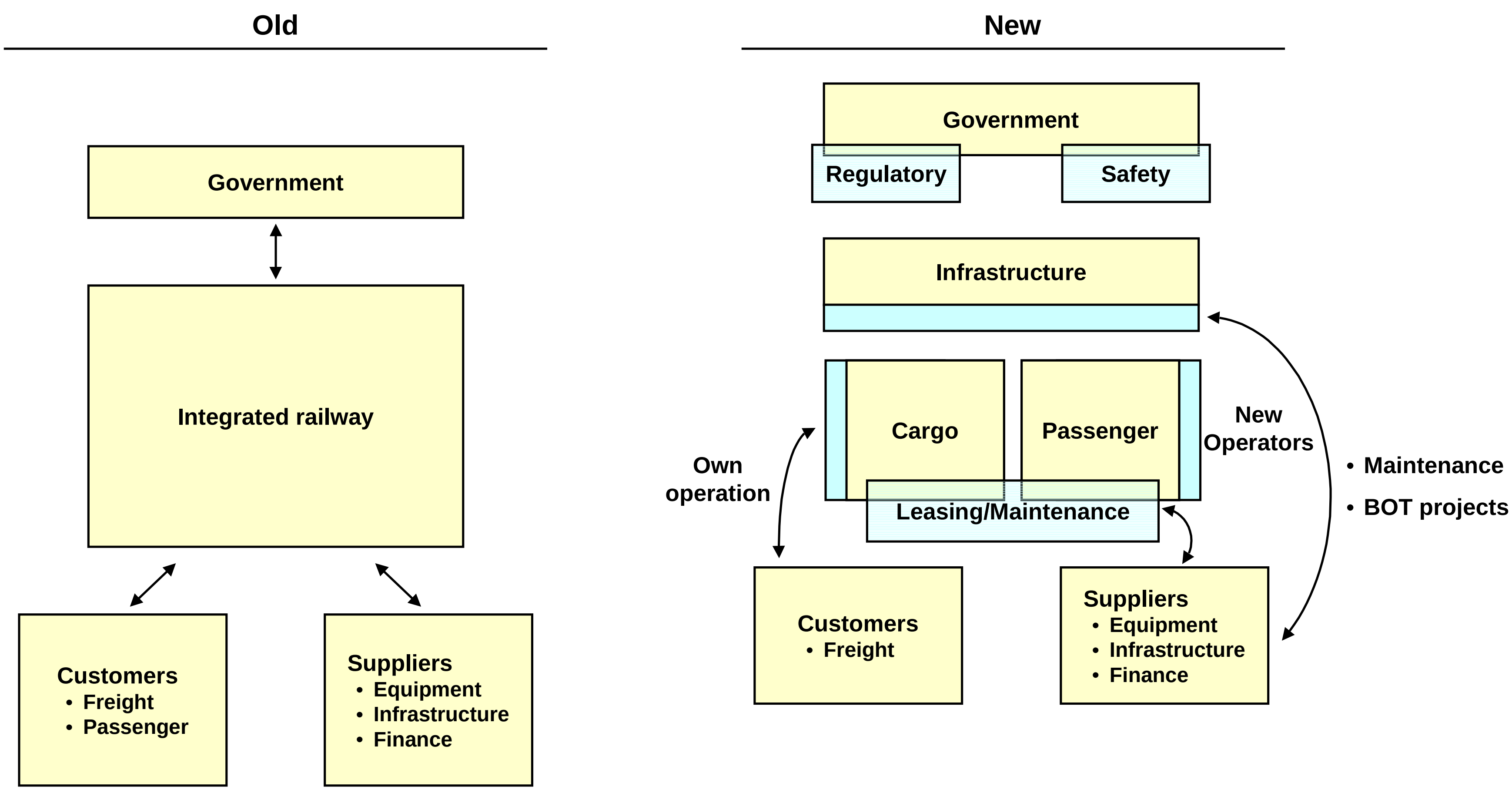
Corporate restructuring

Commercialization of railways

Competition emerging

- **Liberalization has proceeded:**
  - Relatively fast by historical standards
  - But slow compared to other industries (e.g., telecoms, electricity)
- **Greatest impact has been on incumbent railways and suppliers**
  - Restructuring/commercialization by incumbent railways
  - Consolidation in supply industry
  - Growing innovation in financing

A major feature of liberalization has been the unbundling of the integrated railway. Unbundling in turn has led to new operators.



European Railways: Structural change

European Liberalization has created new opportunities for all the players in the industry.

Liberalization

Government

- Direct responsibility for safety / regulation functions
- Oversees ‘health’ of the industry
- Increasing financial pressures

Railways

- Increasing competition
- Pressure to perform (cost service)
- Major internal changes
- Pressure to use new financial structures

Infrastructure Companies

- Start-up
- New (unclear) role and relationships
- Cost pressure/ major internal change

New Operators

- Opportunities, but below expectations
  - Slow
  - Low margins
- Internationaliz-ation difficult

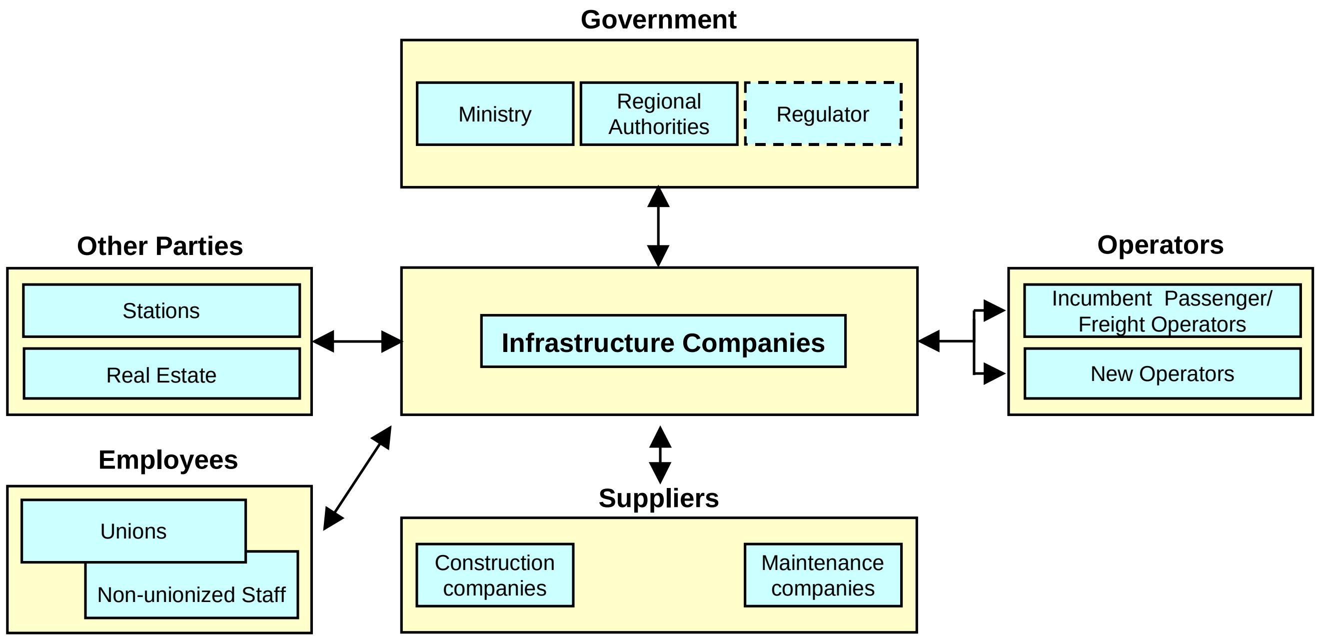
Equipment Suppliers

- Industry restructuring
  - Transfer of R&D from railways
  - Cost pressure
  - Consolidation / acquisitions
- Downstream opportunities

Financiers

- Major opportunities
- …but big risks
- …and slow in happening

Public and private infrastructure companies have a new set of relationships to manage.



- Key priorities:
  - Set up new structure / relationships
  - Improve control over:
    - New projects
    - Maintenance and renewal
  - Improve performance monitoring
  - Meet government / public requirements for investment

Each of the core infrastructure processes changes in the new environment …

	Infrastructure Provision					
Core Processes	**Capacity Planning**	**Construction of New Infrastructure**	**Maintenance and Renewal**	**Access Contracting and Charging**	**Train Control**	**Invoicing and Collection**
Old World	• Integrated with service / network strategy • Influenced by public policy	• Part of investment budget - not transparent • Often over-run budget	• Part of cost structure - not transparent • Single supplier • National standard	• Not done	• Internal to railway	• Not done
New World	• More influenced by return / customer value • Need to anticipate train operators requirements	• Need for tight and transparent control • Increased private sector involvement / innovative approaches	• Increased cost pressures / transparency • Competitive tendering • Multiple suppliers	• Explicit contracts required • Need to ensure maintenance requirements are recognized	• Demands of competing operators • Increased safety requirement	• New process required

A variety of new operators are emerging as competitors to traditional operators.

Train Operators

Passenger

- Connex
- Transdev
- National Express
- First Group
- Arriva
- Stagecoach

Freight

- Rail4Chem
- HGK
- Ruhrkohle/RAG
- Italian companies
- Connex
- Short lines

Maintenance / Financing

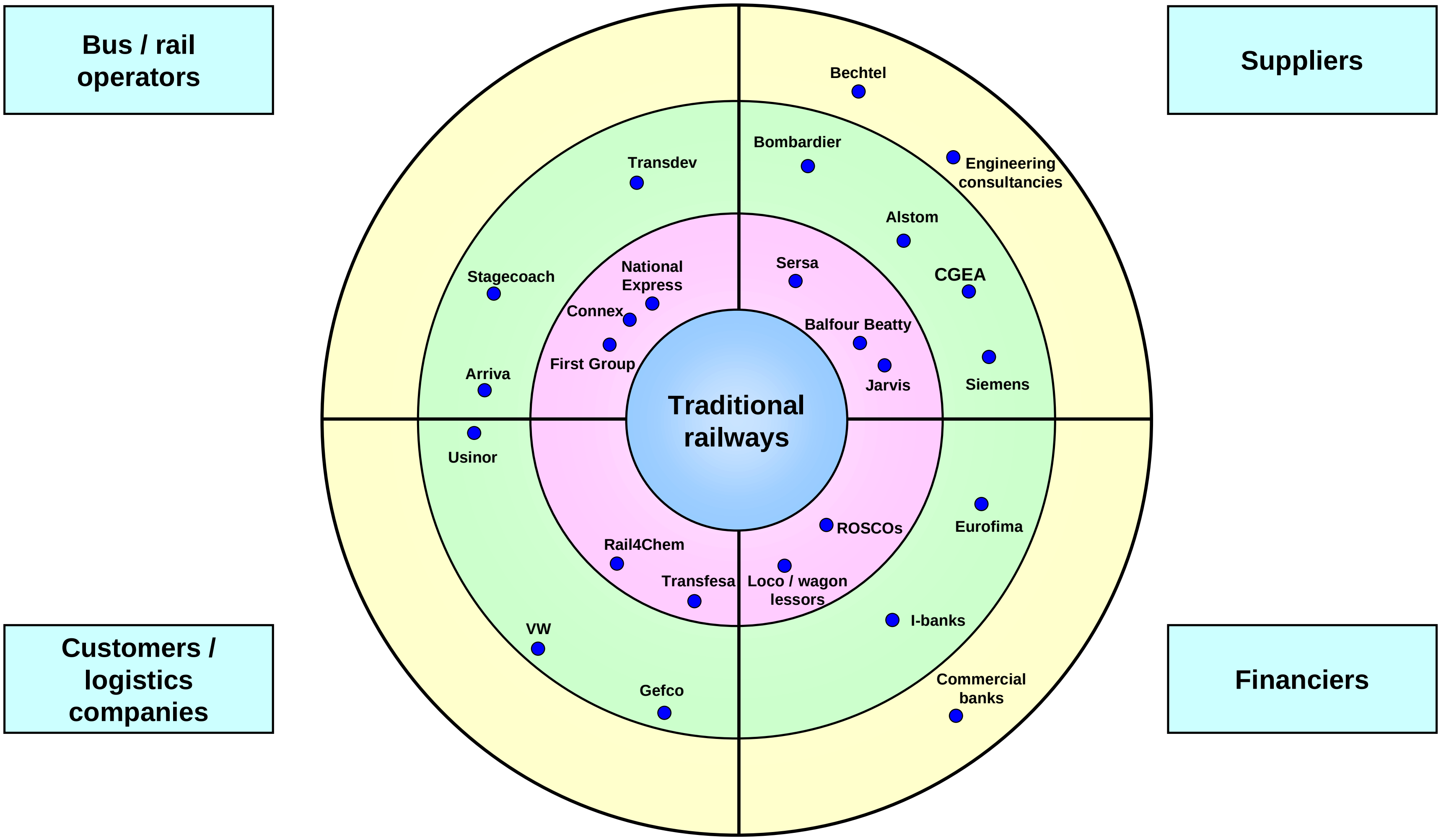
Rolling Stock

- Manufacturers
- ROSCOs
- Wagon lessors

Infrastructure

- BOT consortia
- Bechtel etc
- Sersa
- Jarvis
- Balfour Beatty

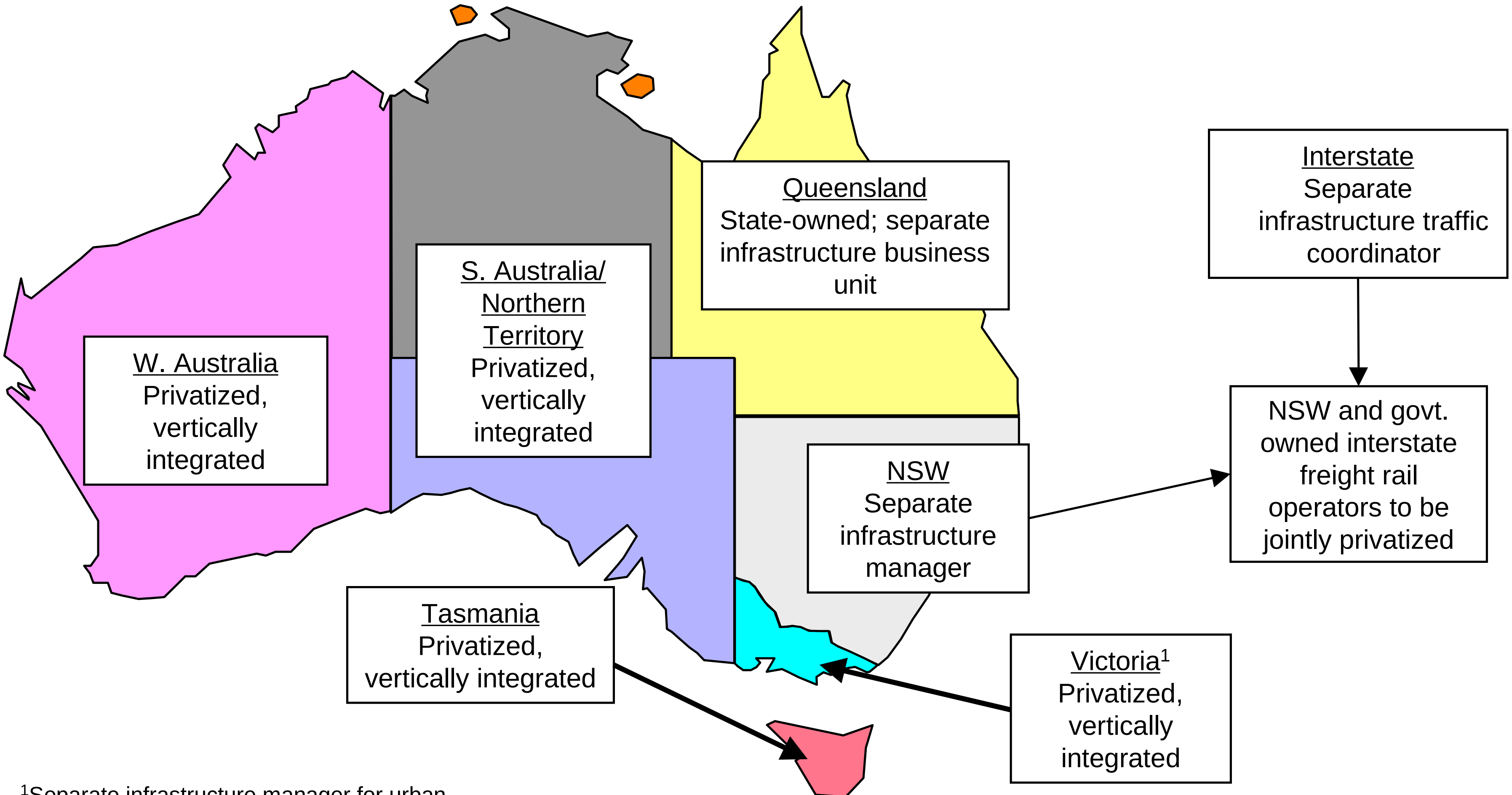
In Europe traditional railways and their suppliers have learned to think in terms of a wide 'radar screen' of competitors for the public provision of rail services.



Structural change also is occurring outside of Europe. Differing approaches create challenges and opportunities for new private operators and as well as suppliers.

Outright privatization and sale	Franchising of key services	Intense outsourcing of functions and services
New Zealand Rail Australian Railways	Colombia Peru Argentina British Rail North American Carriers Chile Mexico South Africa Gabon	Australian Railways European Railways North American Carriers

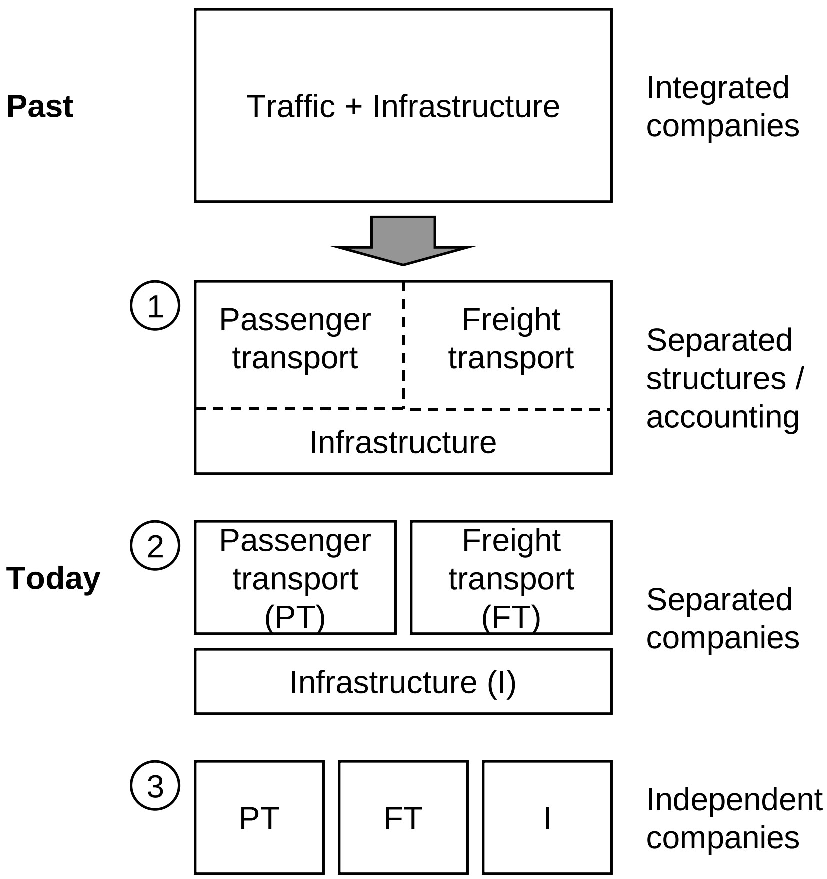
Some nations (e.g., Japan, Mexico) have chosen largely vertically integrated railway structures. In Australia, for example, management of access by vertically integrated railways has been seen as a way to maximize values from privatization.



[1]Separate infrastructure manager for urban (passenger) network.

However, there is substantial interest private operator involvement in horizontally separated structures. As in Europe, this has significant consequences for infrastructure product and service providers.

"Unbundling" of railway companies



Consequences

- The separation of transport and infrastructure led to (internal) customer / supplier relationships
- The separate accounting creates transparency and increases the pressure on cost control for infrastructure managers
- Philosophy of a discrimination-less network access and published access charges ensure an equal treatment for all railway companies
- Increasing demand due to new entrants and foreign rail companies as well as changing "market balance" between passenger and freight transport
- Setup of marketing and distribution departments within infrastructure managers
- Need for products in line with the market (in the sense of service packages) and efficient sales and order processing processes

Major rail suppliers are growing through the acquisition of smaller players and are building sufficient scale to join existing operators as candidates for the restructuring of Amtrak activities.

	GE Harris Harmon Railway Technologies	Trinity	Progress Rail	Alstom	Bombardier
Locomotives					
Railcars		• Astra Vagoane S.A., Feb. 1999		• FIAT Ferroviaria (51% stake), Oct. 2000 • De Dietrich Ferroviaire, July 1998 • Konstal, Oct, 1996	• Waggonfabrik Talbot, 1995 • DWA, 1998
Railcar Parts and Services		• Wear Products, LLC, April 2000 • Proline Services, Feb. 2000 • MCT Holding, parent of McConway & Torley, Oct. 1998	• CAE Vanguard, Nov. 1999 • United Industries, Aug. 1998 • Viking Engineering (division), Aug. 1998 • Blue Industrial Group, June 1998 • Amarillo Railcar, May 1998	• AMF, March 1996 • Wessex Traincare (Holdings) Ltd., Feb. 1998	• Adtranz, 2001
Signals & Right-of-Way	• DJR, March 199 • Siliani Elettronica ed Impianti S.p.A., March 1999 • CSS Inc., Jan. 1998 • Vale-Harmon, June 1997		• Kershaw Manufacturing, Sept. 1998	• SASIB (GRS), Jan. 1998	• Adtranz, 2001
Systems	• SES Co., Oct. 1998 • Angiolo Siliani S.p.A., March 1999 • Syseca, March 1999 • Devtronics, Nov. 1997 • RailTec Late 1997 • Vaughan Systems, July 1996			• Cegelec, May 1998	
Other Industries			• Railcar Ltd., April 1996	• ABB, March 1999	

Contents

What do creative private partners see as opportunities? A hypothetical example

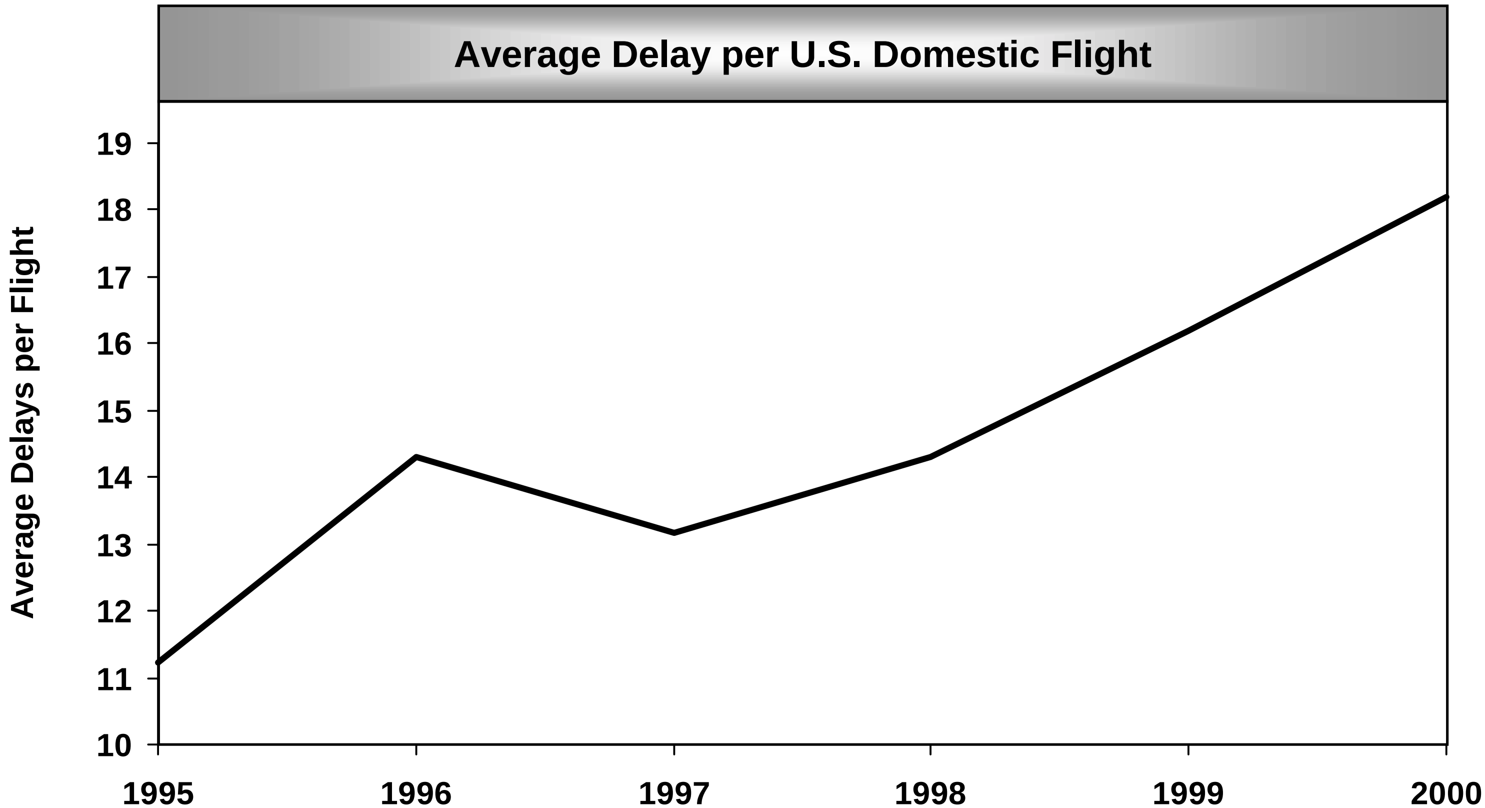
Two of the most pressing transportation challenges facing the United States are airport congestion and the future of Amtrak. If Mercer applies the understanding of private operators from other countries, a new vision for rail transportation could help solve both problems.

- The United States faces growing congestion of many hub airports, along with opposition to the construction of additional capacity. The reduction in congestion since September 11 represents a respite, not permanent relief.
- Amtrak has consumed close to $25 billion of federal funds, yet has failed to contribute significantly to a sustainable national transportation system. The government now faces a decision concerning whether to continue to fund intercity passenger service through Amtrak or to adopt a new model.
- A restructured rail passenger system could help to address airport congestion.

The government could restructure and refocus intercity passenger rail strategy to:

- Introduce the benefits of competition (efficiency and customer service)
- Focus Federal investment where it will have the greatest benefit (i.e., regional rail systems linked to airport connections, dense corridors)
- Restructure Amtrak by:
  - Concessioning operation of the Northeast corridor to the private sector
  - Encouraging states and private parties to develop rail corridor services, including high-speed corridors, and to hire private operators
  - Concessioning long-haul, leisure-oriented rail passenger routes and equipment to the private sector

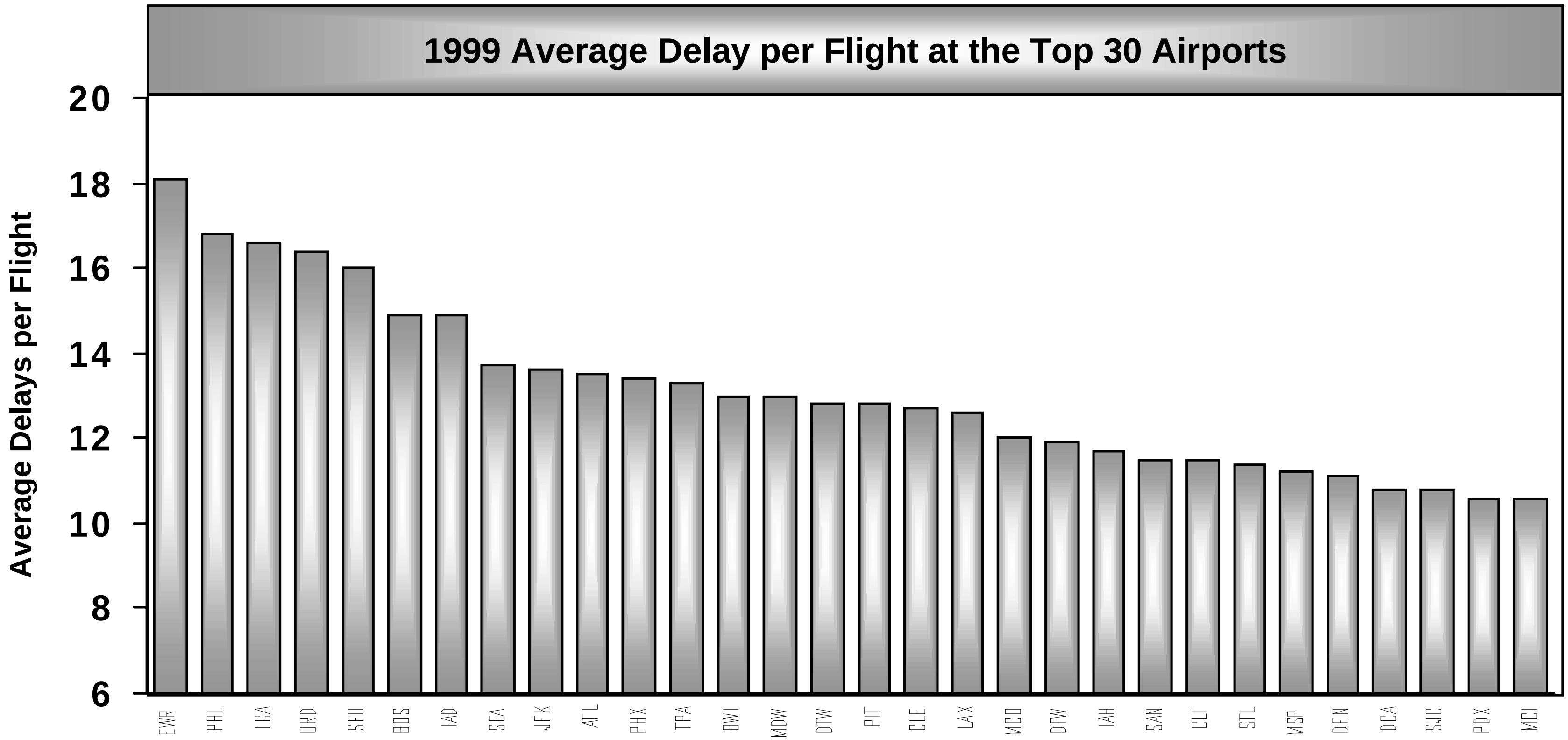
The U.S. air transport system faces large and growing delays. Before September 11, flight volumes were growing 2-3 percent per year--much faster than capacity. Mercer expects air traffic congestion to develop again by mid-2003.



Before September 11, delays per flight were growing at 10 percent per year, and cost $11 to $14 billion per year.

Source: DOT Office of Inspector General, Report Number CR-2000-112 and economic analysis

Airport congestion is concentrated in the top 30 airports by enplanements.



Source: FAA

Despite growing congestion, over the last ten years only one new major airport and six new runways were built. The US is simply not adding enough capacity to accommodate growth--particularly at the most congested airports.

The most congested airports aren't adding capacity...

Airport	Timing	Planned / Ongoing Capacity Upgrades
Newark	NA	• No projects planned, proposed, or currently underway.
Philadelphia	NA	• No projects planned, proposed, or currently underway.
La Guardia	NA	• No projects planned, proposed, or currently underway.
Chicago O'Hare	NA	• No projects planned or currently underway. Initial discussions beginning on a major improvement program.
San Francisco	NA	• No projects planned, proposed, or currently underway at this airport Initial discussions beginning on a new runway which is at least 10 years off.

...So delays will increase

- Runway projects currently take about 10-15 years to complete
- The FAA projects minimal capacity increases at the most congested airports between now and 2010
- With demand growing faster than capacity, delays at these airports will increase rapidly (roughly 10-15 percent per year)
- Linking rail to airports could attack this problem in two ways:
  - Diverting a portion of short-haul flights to rail would free up capacity
  - Federal commitment to supporting regional rail could used as leverage to get local approval for additional capacity
  - Linking rail systems into airports would also increase ridership and financial sustainability

Source: FAA 2000 Airport Capacity Enhancement Plan

The current U.S. passenger rail policy is structured around Amtrak - a government owned and administered monopoly operating a long-haul, light-density, national passenger rail network with minimal linkage to air transportation or other modes.

Amtrak Route Map and Proposed Changes

System Changes Proposed by Amtrak

- Continue system expansion:
  - Increase station pairs by 10%
  - Expand 11 routes
  - Increase frequencies on 3 routes

Extend Route | Increase Route Frequency | Same Routing

Current U. S. rail policy does not address the fact that rail is not competitive with airplanes over longer distances, or with cars and buses on thinly traveled shorter routes.

Rail Competitiveness Assessment

Sample Uncompetitive routes

Chicago-San Francisco

	56hr	$230-$672
	62hr	$644
	53hr	**$175**
	6.5-8hr	$190-$1155

Washington-Chicago

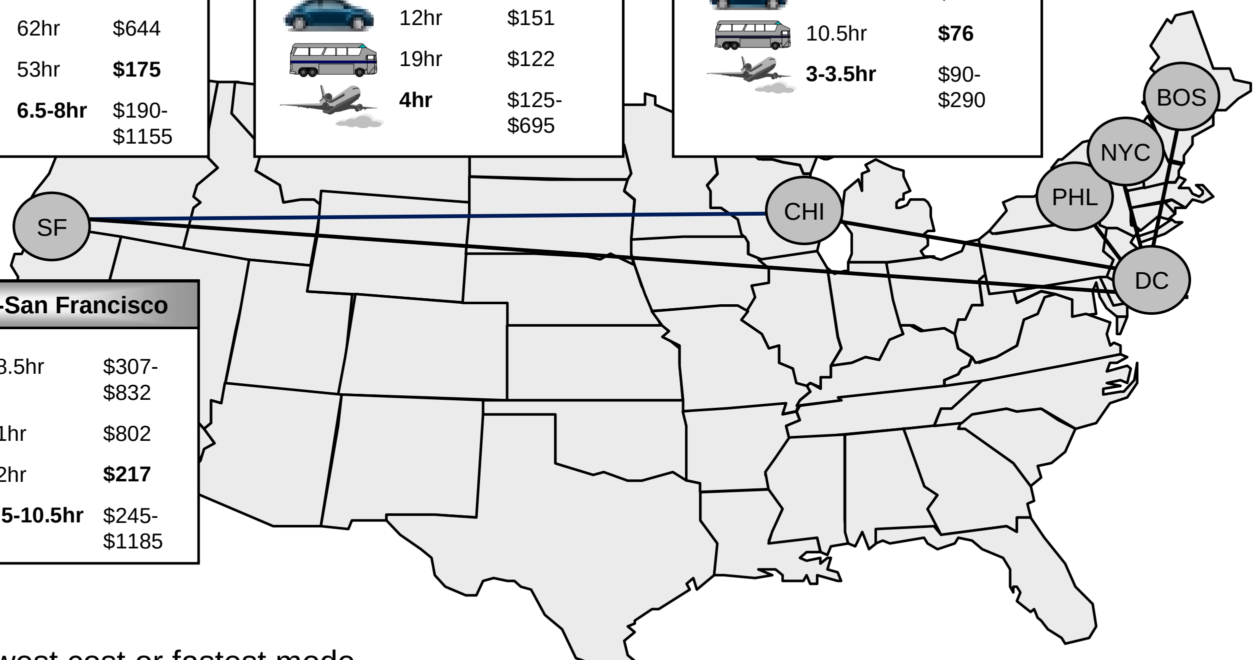
	22.5-25hr	**$115-**$582
	12hr	$151
	19hr	$122
	4hr	$125-$695

Washington-Boston

	8.5hr	$80
	8hr	$95
	10.5hr	**$76**
	3-3.5hr	$90-$290

Washington-San Francisco

	78.5hr	$307-$832
	81hr	$802
	72hr	**$217**
	9.5-10.5hr	$245-$1185



Sample More Competitive routes

Washington-New York

	4hr	$68
	4hr	**$44**
	5.5hr	$40
	3-3.5hr	$80- $250

Washington-Philadelphia

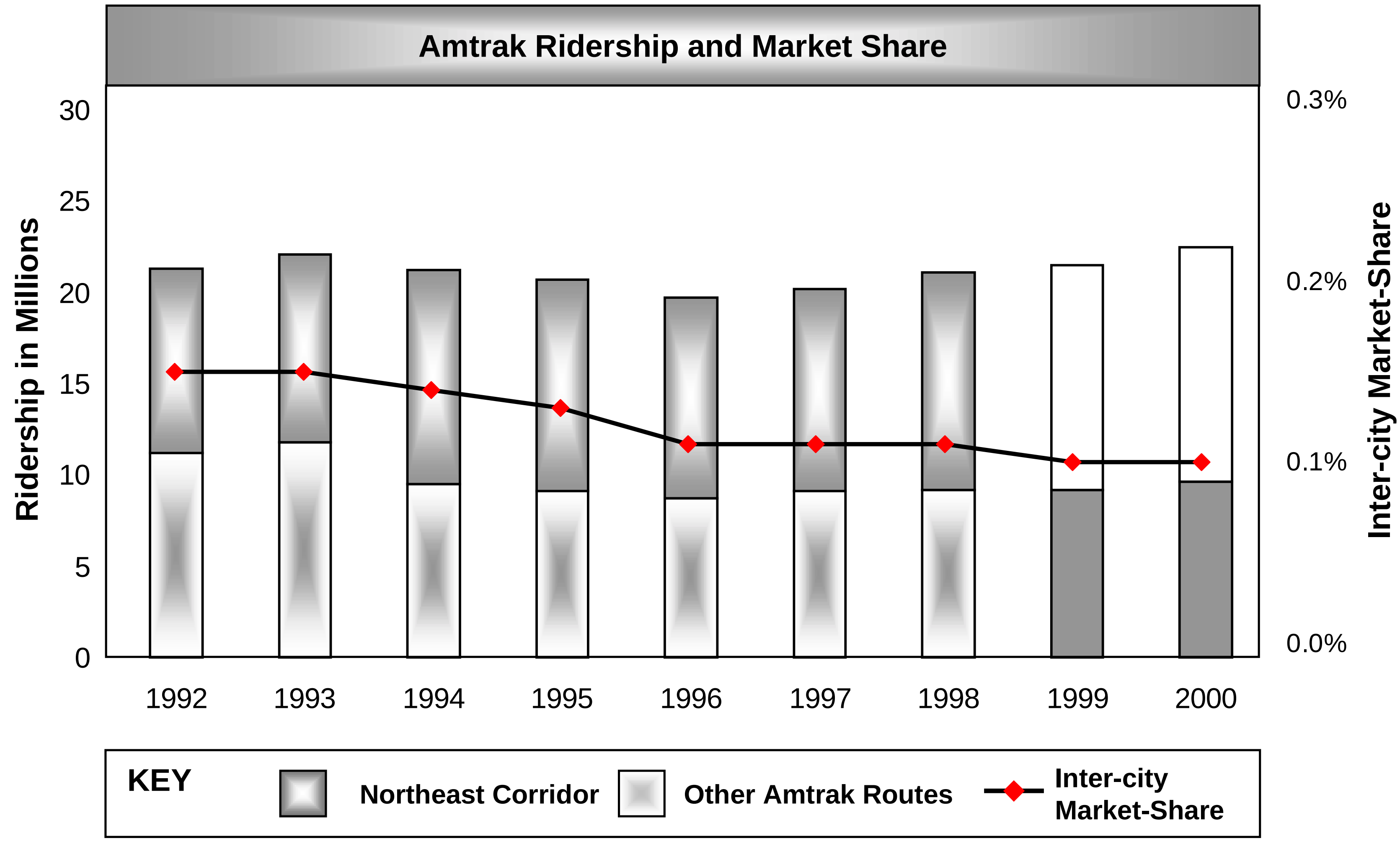
	2.75hr	$41
	3hr	$27
	4.5hr	**$21**
	3-3.5hr	$95-$235

Key

Bold = Lowest cost or fastest mode

Note: All prices reflect one-way standard fares (round trip purchase may be required), with costs and time adjusted for food and (for car) lodging. Times adjusted for connections and automobile driver rest stops.

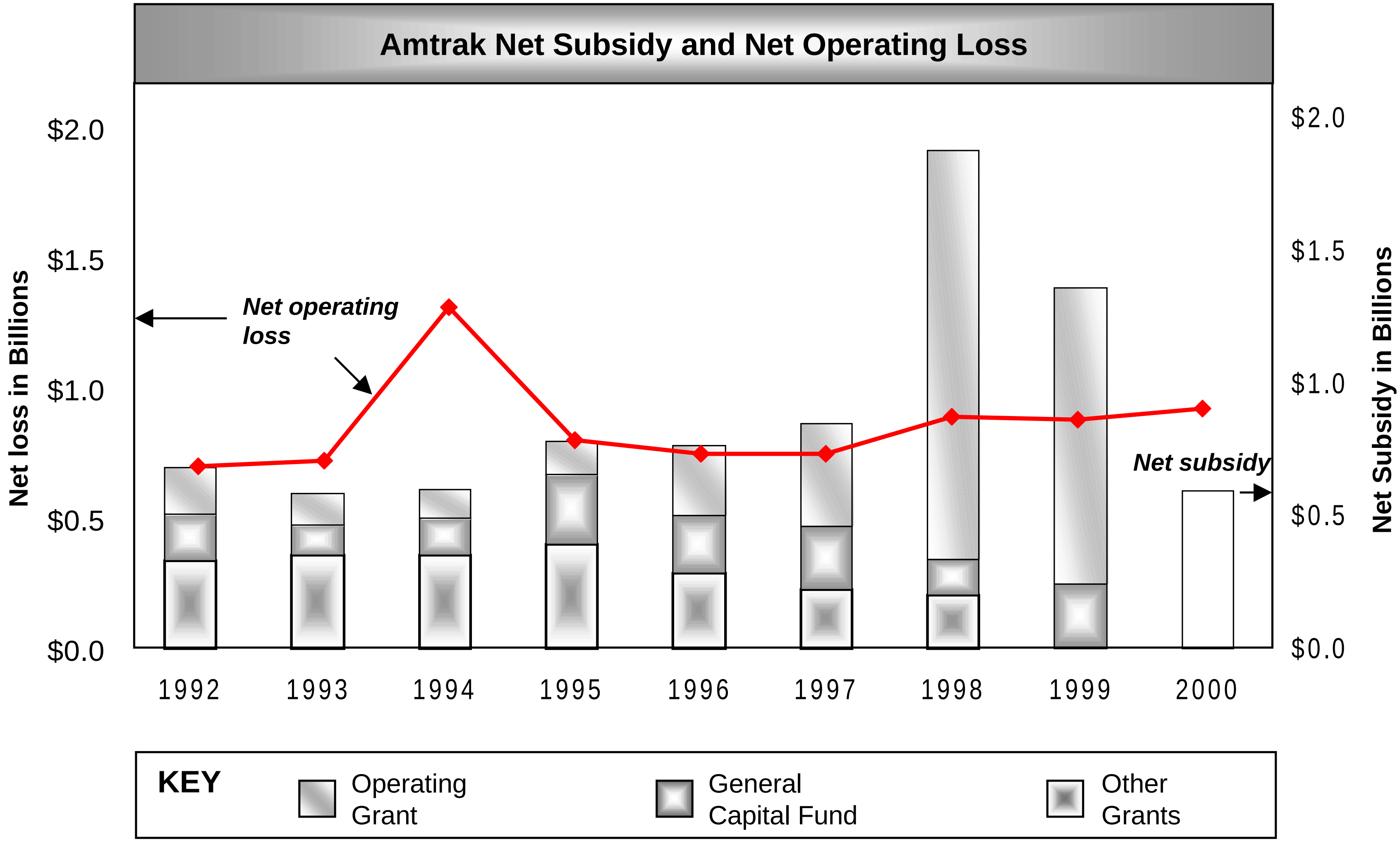
The net effect of this failure is that Amtrak now accounts for less than one inter-city trip per 1,000, and its ridership has fallen sharply outside the Northeast corridor.



Source: Analysis of Amtrak data

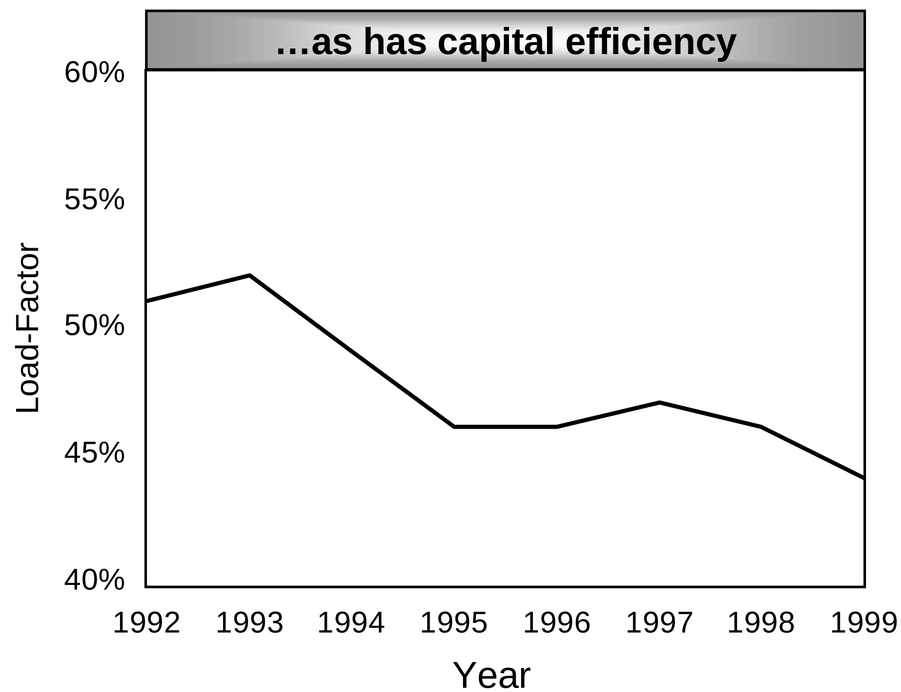
The financial impact of a failed strategy

The financial costs have also been material. Amtrak has received $24 billion in Federal subsidies since inception, with an average subsidy of $1.3 billion per year from 1998-2000.



Source: Analysis of Amtrak data

Amtrak's operating efficiency has continued to decline, despite the 1997 Amtrak Reform and Accountability Act (ARAA) which granted it the flexibility needed to improve performance.



Amtrak's inability to improve labor and capital productivity suggests any attempt to reform the existing Amtrak structure will fail

Source: Analysis of Amtrak data

Prior administrations tried different strategies to reform Amtrak, all of which failed.

	Failed Strategies			Potential Alternative
Policy	**Kill Amtrak**	**Reform Amtrak**	**Expand Amtrak (Amtrak Proposal)**	**Revitalize & Redefine Rail**
Key Points	• Amtrak is inefficient and should be eliminated • If services are worthwhile, someone else will provide them	• Amtrak is important, but inefficient • Amtrak should be reformed to make it more efficient	• Amtrak would work if it just had more investment • Amtrak's funding should be increased	• Rail is valuable, but Amtrak may not be • Focus should be on maximizing "bang-for-the buck" from rail investment
Outcome	• Political resistance is too strong, and change is too difficult • Amtrak is reauthorized	• Little or no impact on actual efficiency • Results in numbers games to be "self-sufficient"	• Increased investment does not improve efficiency • Investment diversion • Wasted money	• Separate the future of passenger rail from the future of Amtrak • Get Amtrak to focus on operations with more accountability
Politics	• Opposed by media, labor & liberals • Failure wastes political capital • The perfect is the enemy of the good	• Avoids hard choices • Bad policy / will not produce real results	• Sound bite politics of bad decisions • Ignores / eliminates Amtrak accountability • Diverts money from higher priorities	• Increased role for private sector / reduced role for government • More competition • Pro-rail / environment

Time is short for the government to develop a new passenger rail policy. Amtrak's current operating mandate expires in October 2002.

The Challenge

- Amtrak is seeking capital subsidies of $10 billion *in addition* to continuing operating subsidies
- Without a bold new vision, the government faces the "lose-lose" proposition of maintaining status quo or trying (unsuccessfully) to eliminate Amtrak. However, the government is sharply focused on security issues, so probably will need other parties to be the catalyst in developing the vision.

A possible response that would help attract private interest

- The government needs a clear and compelling alternative to the Amtrak options of the past (expand / reform / kill)
- There is support at the Amtrak Reform Council and elsewhere to develop a new vision for intercity rail policy, but one or more interested parties needs to take the lead in developing a coalition to develop the vision quickly and to build support for it aggressively.

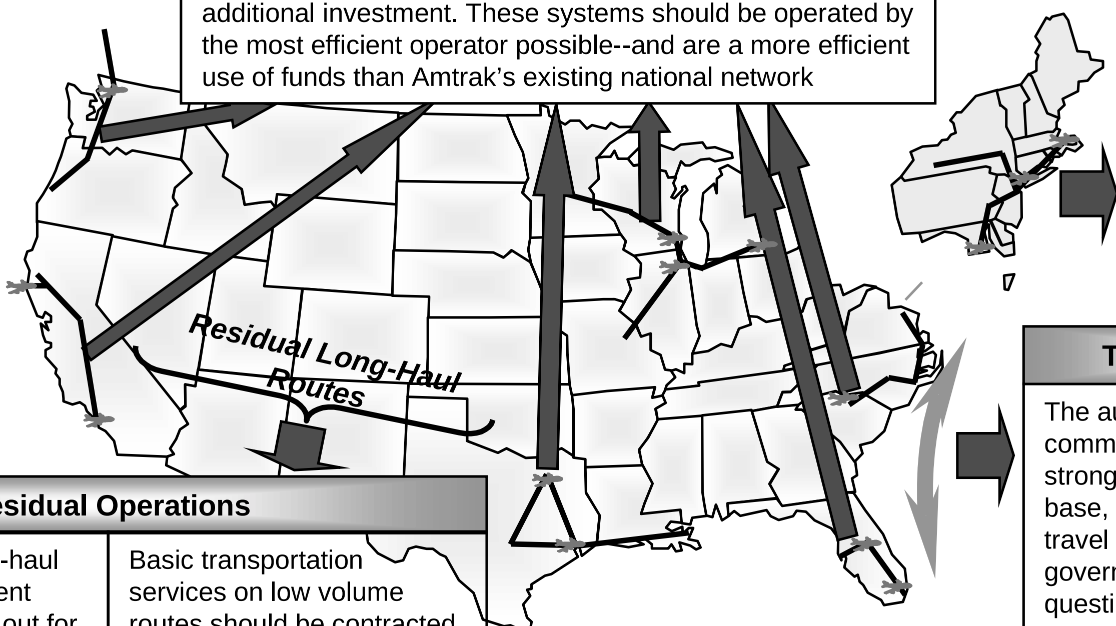
Attracting private operators and investors

By focusing funding on high-density corridors, introducing private competition and encouraging states and others to develop new services, the government can increase the use of passenger rail, reduce subsidies, and decrease congestion at key airports.

Rail Policy Building Blocks

Regional Inter-modal Systems

Regional rail systems could be an effective solution for regional and national/long-haul transportation needs if they were integrated with major airports and supported with additional investment. These systems should be operated by the most efficient operator possible--and are a more efficient use of funds than Amtrak's existing national network



The Northeast Corridor

Almost 60% of Amtrak's traffic (13 million passengers) is carried on just 7% of its system. Short distances, strong demand, and regional congestion make the existing corridor a valuable contributor to the national transportation system--which could be operated by the private sector.

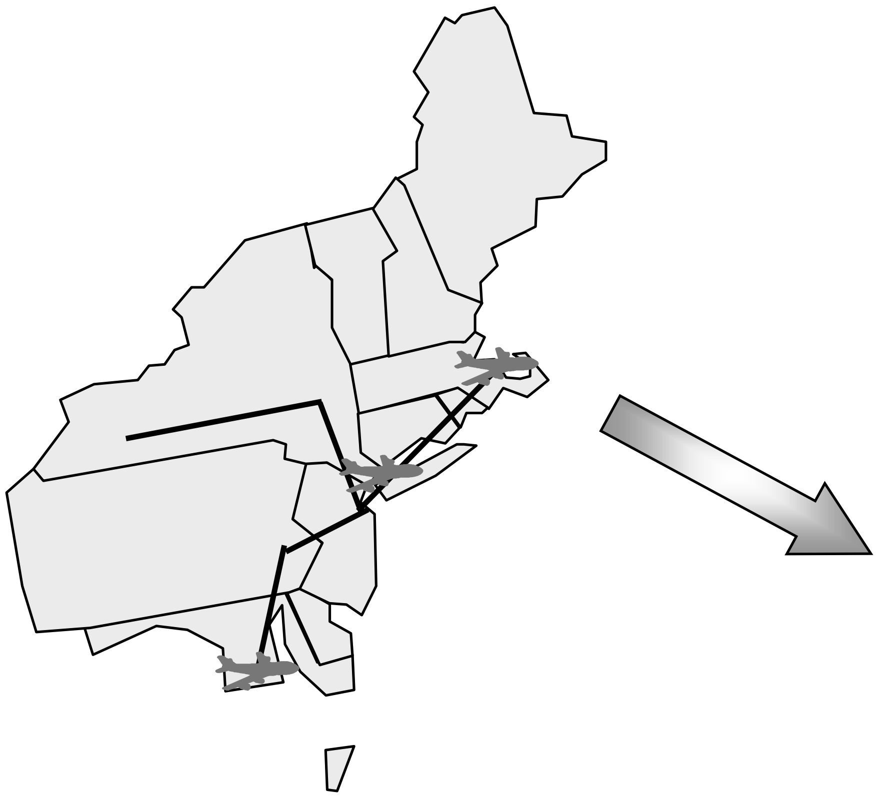
The VA-FL Autotrain

The autotrain is well suited for commercial operation. There is a strong established customer base, clear demand, and a leisure travel focus that makes ongoing government subsidies questionable in the face of likely commercial interest in providing the service.

Residual Operations

Leisure-oriented long-haul services and equipment should be franchised out for commercial operation (as Canada did with the Rocky Mountaineer).	Basic transportation services on low volume routes should be contracted out to maintain basic transportation access, such as subsidized bus or Essential Air Service.

The Northeast corridor handles almost 60 percent of Amtrak's ridership on a small fraction of Amtrak's total track. The Northeast corridor could be concessioned to a private operator or sold to a private operator with the proceeds reinvested.

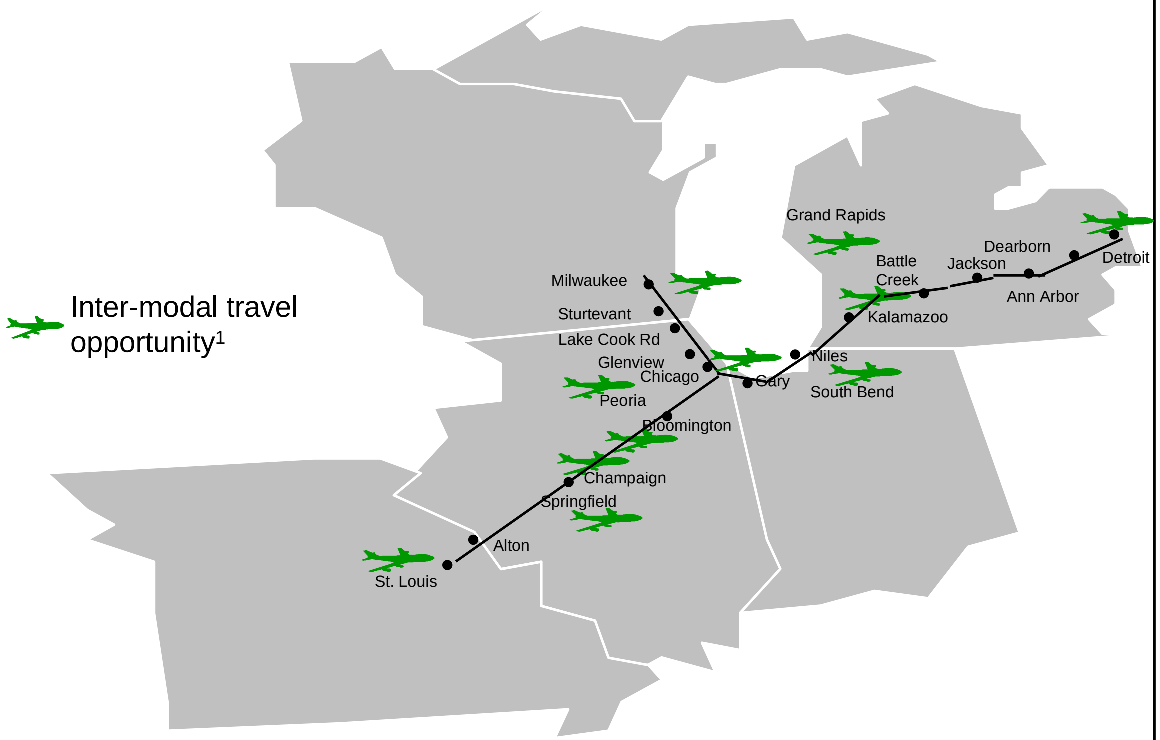


A Commercial Opportunity

- Commercial rail operators have proven their ability to improve financial performance
- Contracting out or auctioning off the Northeast Corridor could reduce the cost to the Federal government, and might improve service

As an example of potential regional inter-modal systems, integrating a Midwest system with the downtowns and airports in Detroit, Milwaukee, St. Louis, and Chicago O'Hare would reduce short-haul flights and ground congestion and improve downtown access.

Chicago Air-Rail Integration Map



Potential Benefits

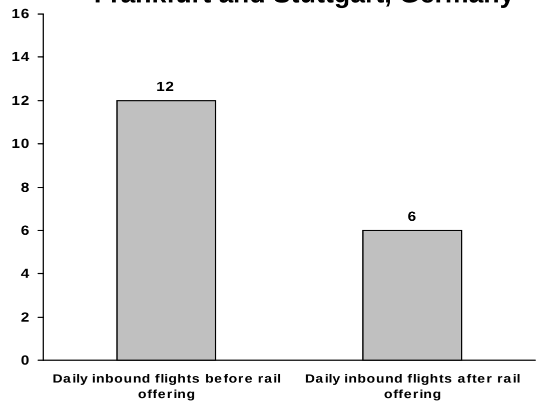
- An integrated inter-modal system would provide:
  - Rail service equivalent to over 140 local daily flights into O'Hare
  - An estimated reduction in local commuter flights of about 70 flights per day[2]
  - Reduced local highway access needs (mostly cars and taxis) by up to 20 percent
  - Improved service through better connectivity, faster travel times and lower costs for air passengers
- Commitment to an inter-modal HSR system might reduce local resistance to adding capacity at O'Hare if the HSR system was contingent on runway approval

[1] Rail assumed to be viable travel alternative if within 50 miles of an airport.

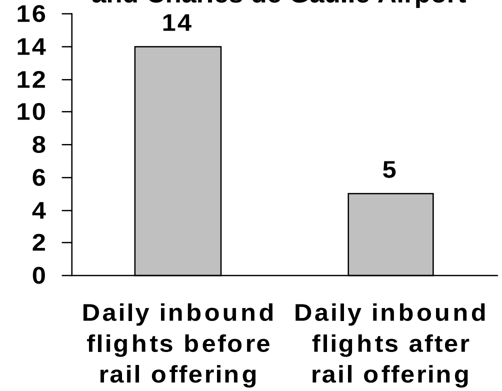
[2] Based on comparable European rail market share (estimated at 50%, E.g., Eurostar claims 62% of London-Paris and 46% of London-Brussels markets).

In both Europe and Asia, inter-modal rail has proven that rail linked with airport connections can reduce pressure on airports and increase passenger rail ridership.

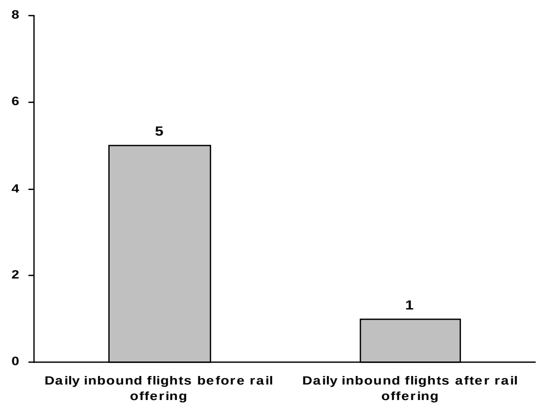
Impact of ICE rail service between Frankfurt and Stuttgart, Germany[1]



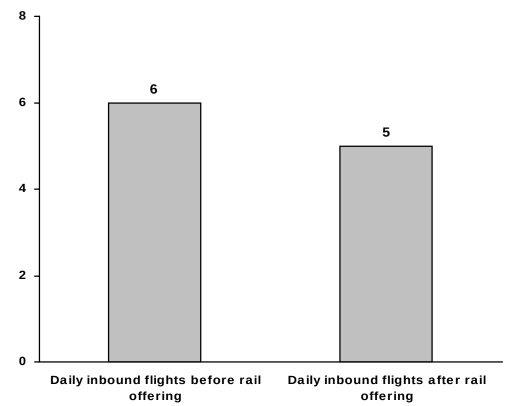
Impact of TGV rail service between Brussells and Charles de Gaulle Airport[2]



Impact of Shinkansen rail service from Yamagata, Japan to Tokyo



Impact of Shinkansen rail service from Akita, Japan to Tokyo



[1] ICE and air combined service initiated in March 2001.

[2] TGV service began in January 1998.

Source: Official Airline Guide

Europe is looking to rail as an alternative to short haul feeder flights. As European rail becomes more established and integrated with air travel, subsidies are declining with some routes approaching standalone profitability.

	AIRail Service. The train to the plane.	TGV
History	• Lufthansa, Deutsche Bahn, and Frankfurt Airport created AIRail as a joint venture in March 2001	• TGV Air service between Paris and Brussells was initiated in January 1998 with the completion of track between Belgium and France
Services	• Offers short-haul service between Stuttgart and Frankfurt Airport with combined rail/air tickets, seamless connections, and slightly lower travel times compared to flying	• Provides high-speed rail service from Charles de Gaulle Airport to Brussells • Combined air and rail tickets are available
Ridership	• Current AiRail Service passenger capacity is 640 passengers per day, increased from 550 in June 2001	• Approximately 2.8 million passengers annually on the Brussells-Paris route in 2000 • Ridership grew by 7.5% from 1999-2000
Impact	• Lufthansa has reduced its 12 daily flights by 50%, currently using 6 flights and 6 rail trips	• Since 1998, air travel between Brussells and Paris has been reduced by over 50%, with Air France selling tickets on the TGV offering • Route is approaching stand-alone profitability

Regional passenger rail: Asian case studies

Similarly, in Japan the introduction of competitive rail operations that are integrated with airports has led to declining market share for air travel, and has helped JR East Group achieve profitability.

	Yamagata Shinkansen	Akita Shinkansen
History	• JR East Group initiated high-speed service between Yamagata, Japan and Tokyo in July 1992 • Since privatization in 1987, the Shinkansen routes have contributed to JR East's 9% revenue growth from 1994-1999	• High-speed service between Akita, Japan and Tokyo began March 1997, improving commuter access • This new Shinkansen "bullet train" route is part of JR East's expanded commuter offering
Services	• Fast, reliable long-distance transport (224mi) between Yamagata and Tokyo in 2.5 hours • Provides frequent connections in Tokyo to Narita airport via a rapid express train	• Fast, reliable long-distance transport (411mi) between Akita and Tokyo in less than 4 hours • Provides frequent connections in Tokyo to Narita airport via a rapid express train
Ridership	• Served over 3 million passengers in 2000	• Served approximately 2.8 million passengers in 2000
Impact	• Increased rail market share between Yamagata and Tokyo • Reduced total daily flights from 11 to 3 since start of service	• Increased rail market share between Akita and Tokyo from under 50% to 60% since inception • Reduced air travel by 20% in the first 6 months

Leisure-oriented rail services have considerable potential for commercial operation outside of the core rail transport corridors, and on some segments such as the Virginia-to-Florida Autotrain.

The Leisure-Travel Opportunity

- Amtrak's long-haul routes are primarily leisure-oriented (as Amtrak's marketing tacitly acknowledges)
- There is little or no reason to provide government subsidies for leisure travel
- Accordingly, Amtrak should exit its money-losing long haul routes, since these routes are not essential to the national transportation system and are not be financially self-sustaining
- Currently, Amtrak leases access to selected scenic routes to the American Orient Express Company, also providing locomotive power and maintenance services
- Rights to operate these and other long-haul leisure-oriented services should be concessioned off to the private sector (e.g., Disney, Carnival, existing passenger rail excursion operators), including the transfer of:
  - Access rights and legal authorization
  - Excursion-oriented rolling stock and equipment

Case Study: Rocky Mountaineer Railtours

- In 1990, the Canadian government decided to stop subsidizing leisure-oriented passenger train service and to privatize its daylight excursion service
- Through a competitive auction, the Great Canadian Railtour Company was awarded the rights to operate the daylight service
- The management team decided to offer scenic tours along the Canadian Pacific coast and across the Canadian Rocky Mountains
- Significant capital investment has been made in the tourist-related equipment and amenities (e.g., 6 luxury dome coaches)
- An extensive network of alliances and ties have been developed with the the tourist trade industry to increase awareness and sales (airline discounts, free hotel upgrades etc..)
- By offering a differentiated value proposition to the leisure traveler, Rocky Mountaineer Railtours has been able to charge a premium while maintaining high levels of customer satisfaction and employee retention

Where necessary, transportation service on unprofitable rail routes could be subsidized at a much lower cost than today through a program like Essential Air Service.

Providing Basic Transportation Services

- On long-haul routes that are not an efficient use of resources, or that are primarily leisure-oriented, some customers may still rely on rail access
- A legitimate concern of Congress is to make sure that constituents access to basic transportation services is preserved
- If the underlying goal of rural and small town passenger rail is to provide basic transportation services, then this goal should be met as efficiently as possible
- Basic transportation services could be provided in multiple ways, and there is little or no reason why rail service in particular would be required
- Routes that might be impacted by rail service should be assessed for their underlying transportation needs, and these needs should be targeted as efficiently as possible

Policy Alternatives

- There are a number of potential policy alternatives to ensure basic transportation needs are met. These include:
  - Create an Essential Air Service requirement to replace reduced rail services
  - Subsidize a bus route or other surface transportation to replace rail access
  - If rail is truly essential, then the routes should be put up for bid, and the subsidy should be made explicit.
- It is not fair to Amtrak or potential future operator to expect them to operate at a break-even and to subsidize rural transportation. Making subsidies explicit would help avoid this issue.

If positioned correctly, rail passenger policy reform would benefit key stakeholders and interest groups, and would provide the Administration with political advantages for key constituencies.

Unions

- Construction unions would support development of new HSR systems
- Amtrak unions would oppose, but these concerns could be partially offset through use of buy-outs and hiring boards

Congress

- Congress would be largely motivated by the interests of their states
- Construction unions would largely offset the concerns of Amtrak unions
- Conservatives could endorse the policy on Federalist grounds (a shift of power to the states) and reduction of subsidies

Airlines

- Airlines would support better inter-modal integration to address ground congestion and strengthen key hubs
- Based on European experience, the airlines will also be interested in developing integrated air-rail products

States

- The states are key supporters of regional high speed rail systems
- States that would likely be impacted by new HSR systems would probably support the policy shift
- Remaining states might support the proposal in exchange for inexpensive service guarantees

Media

- While the media likes Amtrak, it also likes rail and particularly high speed rail
- Pursuing a shift to inter-modal regional HSR systems would position the administration as innovative “moderates”
- Passenger rail is environment friendly

Rail suppliers

- Growth oriented market
- Opportunities to participate as operators or investors
- Drive for new technologies
- New markets
- Move downstream and increased involvement in operations

With Amtrak reauthorization scheduled for the fall of 2002, the clock is already ticking. If increased private sector participation is to have a chance, the private sector will need to see an aggressive effort to develop and sell a bold new vision for intercity rail passenger service.

Key Steps

Fall 2002

Develop baseline data and options

- Establish baseline
- Review international benchmarks
- Identify feasibility
- Identify restructuring options
- Assess policy benefits
- Identify impact on key stakeholders/ interest groups
- Develop PR themes/messages

Develop vision

- Develop a clear vision for:
  - Northeast Corridor
  - Regional corridors
  - High speed corridors
  - Leisure services
  - Essential services

Develop communication campaign

- Identify key messages / sales points by interest group
- Develop supporting materials
- Identify potential media sources
- Develop action plan for key coalition members

Sell policy to Administration

- Sell policy vision to Administration

Sell to key members of Congress and interest groups

- Develop sales process for Congress
- Identify key interests by constituency
- Determine potential policy trade-offs
- Negotiate for support / endorsement

O'Hare airport and the Midwest are a prime opportunity to start restructuring U.S. rail policy around regional intermodal systems--building regional political support while resolving one of the greatest transportation congestion problems facing our country.

The Importance of O'Hare

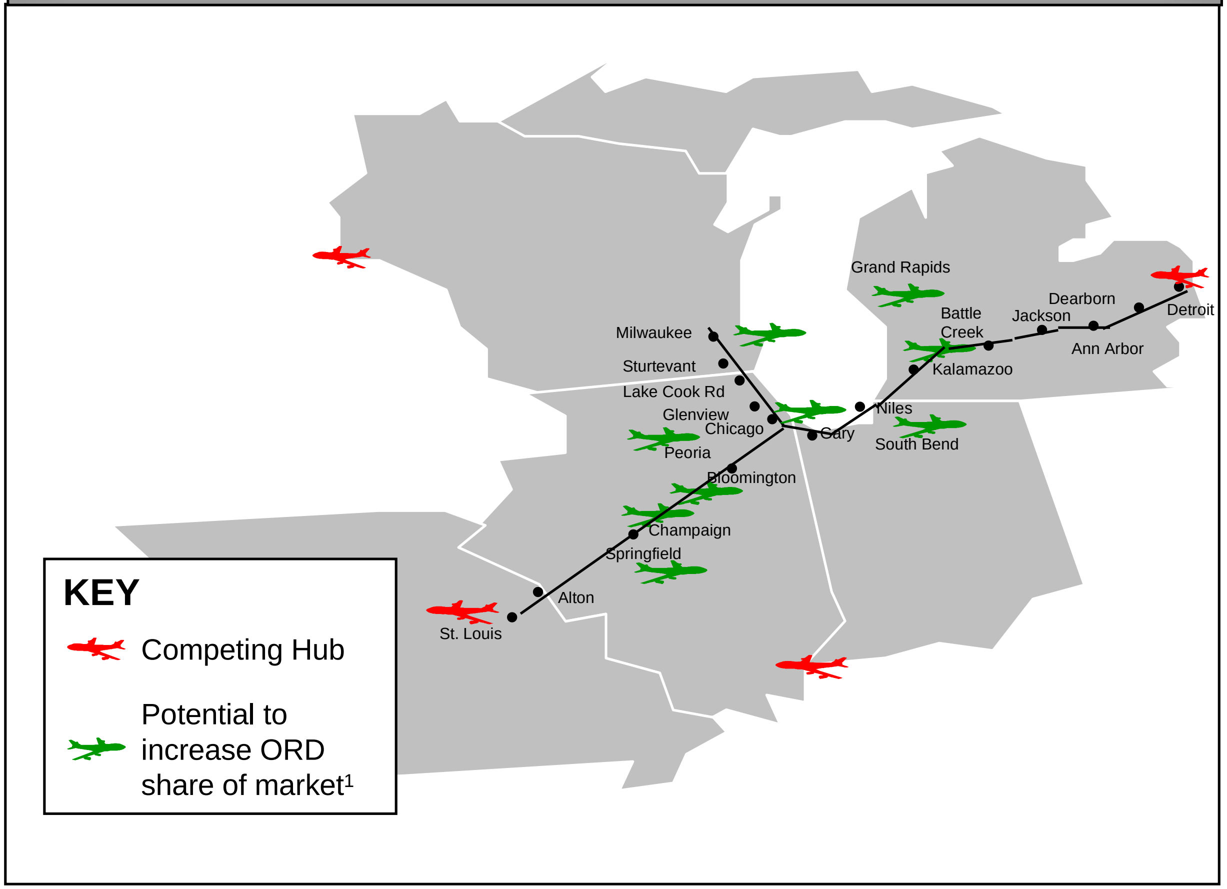
- O'Hare airport plays a critical role in the national transportation system and is at a critical juncture with its plans to add additional capacity
- If approved, the capacity approval plan would solve O'Hare's airport delay problems for at least the next 20 years.
- If the plan is not approved, O'Hare's delays will sky-rocket, and the airport will require Federal intervention
- In addition to its role in the national transportation system, O'Hare is a key hub for the two largest airlines in the U.S., American and United

The Rail Integration Alternative

- Inter-modal passenger rail could use either of two rail corridors that pass near O'Hare to provide regional rail service--including a down-town express train (separate from existing Metra service)
- Given the amount of construction proposed at O'Hare, this is a good time to try to integrate rail service into the airport master plan
- This service would link Milwaukee, St. Louis and Detroit with Chicago (targeting four battleground states) with improved rail service
- By endorsing Federal support for a regional intermodal passenger rail system, the Administration could help broker regional consensus on the system while:
  - Showing its sensitivity to concerns about the impact of airport expansion
  - Reducing the need for feeder flights
  - Reducing ground access congestion
  - Laying the foundation to restructure Amtrak

Regional intermodal rail would benefit major airlines in several key ways including increasing major hub's catchment areas, reducing short-haul flights, providing a basis for competitive differentiation, and building political support for airport capacity improvement.

Chicago Air-Rail Integration Map



Potential Benefits at ORD

- A Chicago-centric regional intermodal system would strengthen the competitive position of the major Chicago carriers (United & American)
- The system would draw passengers from parts of Wisconsin, Michigan, Indiana and Illinois that might otherwise connect via a short-haul flight to a competing hub--improving Chicago's connectivity relative to competing regional hubs
- Further, by integrating their operations with the intermodal system more than competitors, United and American could increase their share of Chicago-area traffic by differentiating their service
- Finally, willingness to support an intermodal system could be used as a bargaining chip to win State support for increasing capacity at ORD--which is critical to maintaining O'Hare's long-term position

1 Rail assumed to be viable travel alternative if within 50 miles of an airport.

2 Based on comparable European rail market share (estimated at 50%, E.g., Eurostar claims 62% of London-Paris and 46% of London-Brussels markets).

Contents

Based upon its experience, Mercer believes that private operation of rail passenger service in the United States will be most successful if it is governed by certain basic principles.

- Commitment by the federal government to fundamentally restructure the way in which railroad passenger service in the United States is organized, and to encourage its development
- Commitment to gaining the benefits of competition by creating an open and transparent rail passenger service marketplace involving world-class passenger rail industry providers
- Commitment to providing passenger rail services based on market demand so that:
  - The services provided are those that passengers are most willing to pay to use
  - Federal funding is directed to those services with the greatest demand and market potential
  - Services are added, discontinued, or adjusted based upon demand
- Commitment by the federal government to funding that provides leverage to state, local, and private funds and supports services with the highest passenger demand
- Commitment to maximizing the involvement of private passenger service providers and state and local governments in designing services tailored to regional, state, and local markets and development plans
- Commitment to fair treatment for any Amtrak employee displaced in the restructuring process

Mercer recommends that the government design the elements of its restructuring plan for passenger rail service based on international standards and its prior success in restructuring other businesses (e.g., Conrail, Chrysler).

- National Passenger Rail Authority (NPRA): A small organization, likely housed within DOT, should be created to hold Amtrak's statutory rights to operate passenger and mail and express service over freight railroads and to act as grantor of such rights to public and private operators. It should (1) select the National Passenger Rail Network Manager, (2) serve as the decision maker for allocation of federal rail passenger subsidies, (3) serve as the single point of contact for the freight railroads with respect to passenger train access, and (4) negotiate and price access fees for passenger operators over lines owned by freight railroads.

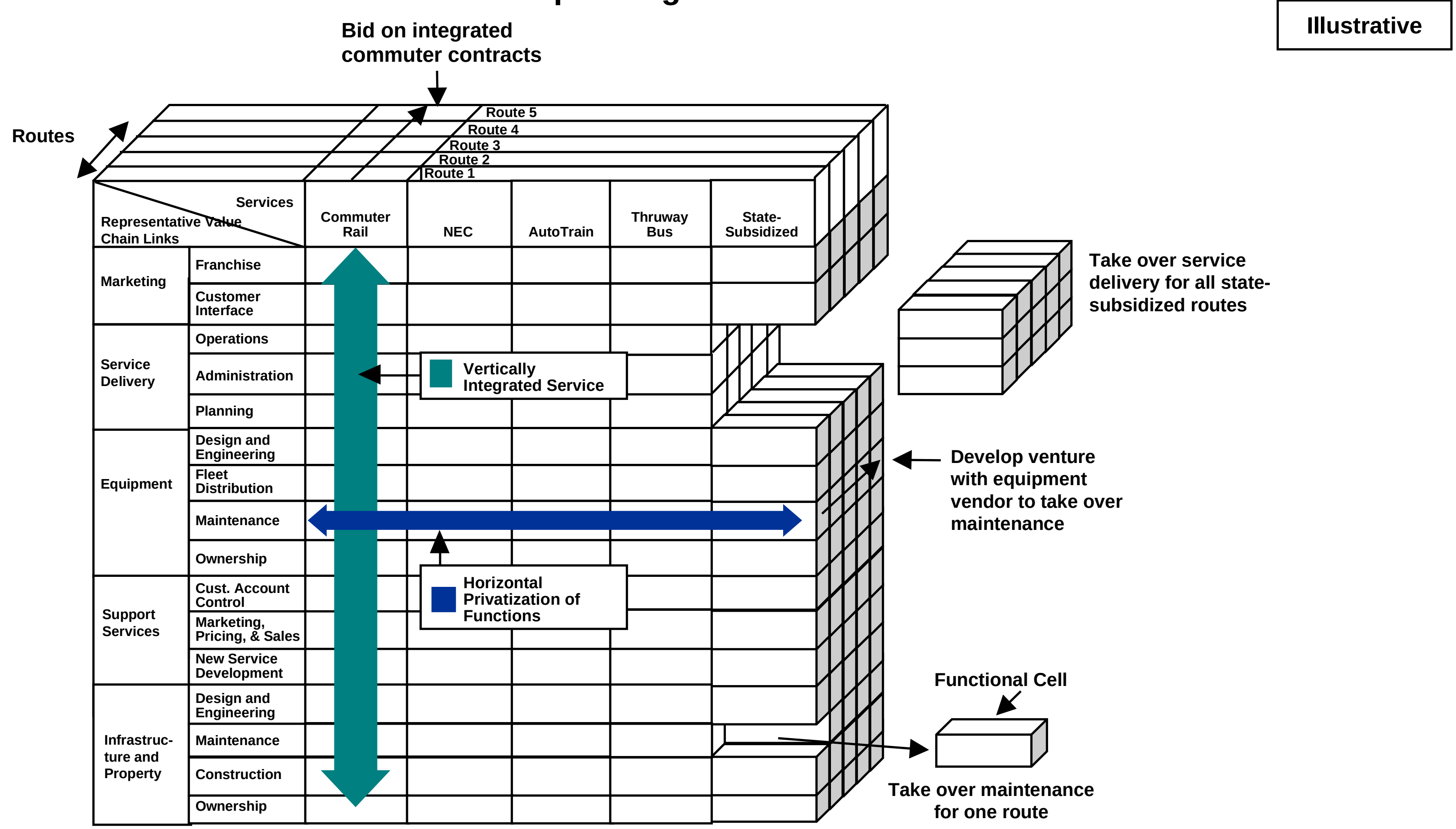
- Passenger Rail Restructuring Agency (PPRA): A temporary government agency – similar to the United States Railroad Association, which managed the successful reorganization of Conrail, and to the Resolution Trust Corporation, which managed the S&L crisis – should be created to plan and manage the transition from Amtrak to a new passenger rail service structure and to deal with transitional tasks (for example, labor restructuring, the sale of Amtrak assets, and settling Amtrak's remaining financial obligations).

- National Passenger Rail Network Manager: A private organization should be selected to award concessions and manage concession contracts. Operating just as other private companies do – such as McDonald's or Avis – this organization would act as the manager of concessions (franchises). It would be rewarded for the success of those concessions. It could provide national, integrated management of functions such as revenue settlement, reservations, advertising, purchasing, insurance, brand management, and service coordination.

- Northeast Corridor Asset Company: A federal organization should be created to own the NEC infrastructure. It should hire one or more contractors to manage, operate, and maintain the corridor.

As proposed under this blueprint plan, the Network Manager would unbundle Amtrak's service offerings to define the specific operating and asset transactions where private companies could participate in providing rail passenger services.

The Amtrak Operating/Asset "Bundle"



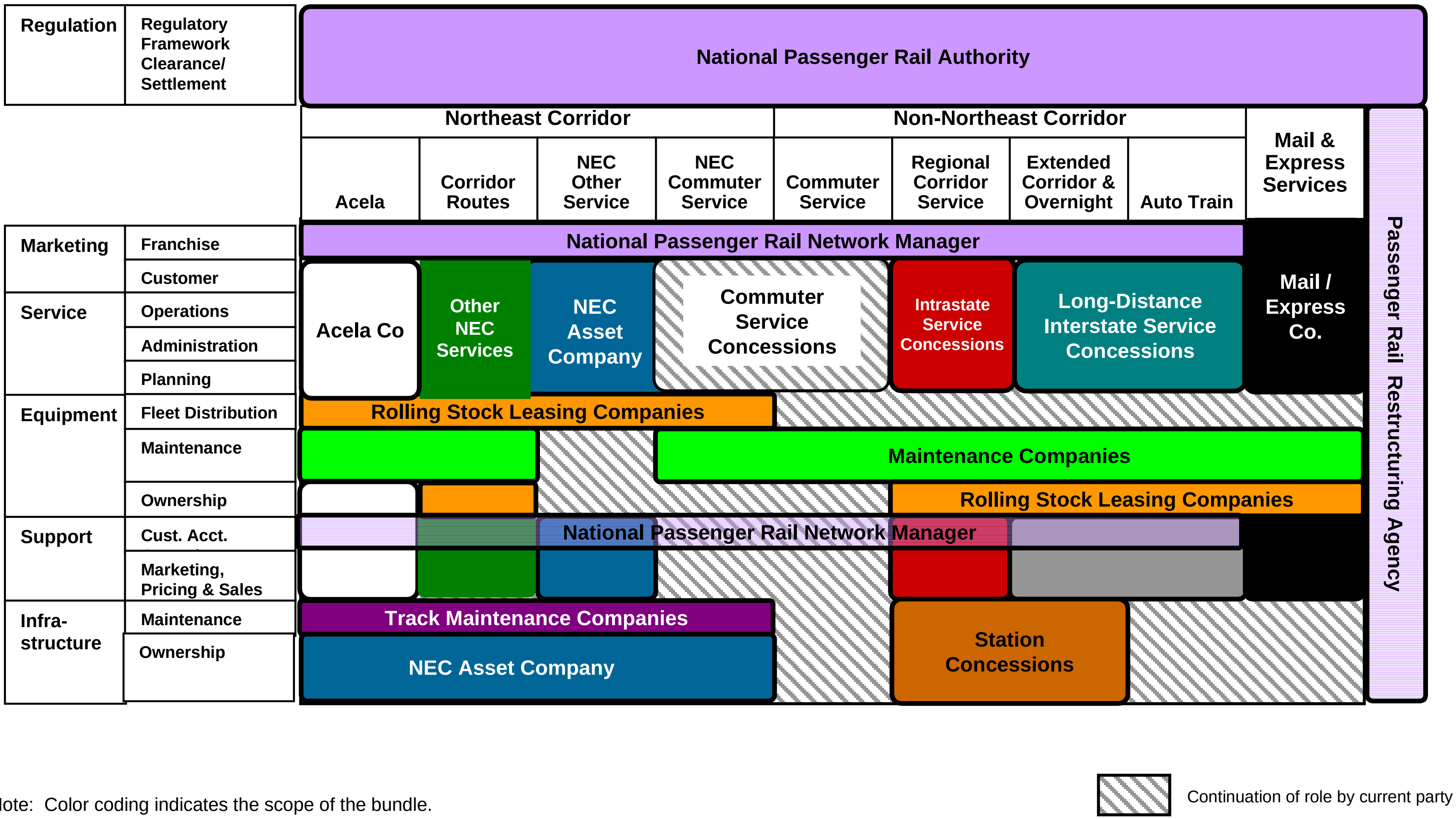
Unbundling Amtrak assets and services will create a wide variety of investment opportunities for the private sector.

The Current Amtrak “Bundle”

- Amtrak Only
- Mixed Amtrak / Other party
- No Amtrak

<table>
<tr><th colspan="2" rowspan="2"></th><th colspan="4">Northeast Corridor</th><th colspan="4">Non-Northeast Corridor</th><th rowspan="2">Mail and Express</th></tr>
<tr><th>Acela</th><th>Corridor Routes</th><th>Other Services</th><th>Commuter Service</th><th>Commuter Service</th><th>Regional Corridor Service</th><th>Ext Corr & Overnight Services</th><th>Auto Train</th></tr>
<tr><th rowspan="2">Market-ing</th><th>Franchise</th><td rowspan="2">Amtrak Separate Brand</td><td rowspan="2">Amtrak in NEC SBU</td><td rowspan="2">Part of Amtrak Corp SBU</td><td colspan="2" rowspan="2">Regional transit authority</td><td colspan="3" rowspan="2">Amtrak in West/InterCity SBU</td><td rowspan="2">Amtrak in North/InterCity SBU</td></tr>
<tr><th>Customer Interface</th></tr>
<tr><th rowspan="3">Service Delivery</th><th>Operations</th><td>Amtrak</td><td colspan="2">Amtrak -passenger operations and mail express services over longer routes</td><td>Amtrak</td><td>Amtrak except Sounder</td><td colspan="3">Amtrak</td><td rowspan="3">Amtrak</td></tr>
<tr><th>Administration</th><td rowspan="2">Amtrak Separate</td><td colspan="2" rowspan="2">Amtrak in consultation with regional authorities</td><td colspan="2" rowspan="2">Regional transit authority</td><td rowspan="2">States choose and fund operations under 403(b)</td><td colspan="2" rowspan="2">Amtrak in consultation with regional authorities</td></tr>
<tr><th>Planning</th></tr>
<tr><th rowspan="4">Equipment</th><th>Design Eng.</th><td colspan="2">Equipment providers</td><td>N/A</td><td colspan="6">Equipment providers</td></tr>
<tr><th>Fleet Distribution</th><td colspan="3">Amtrak</td><td>Regional authority with Amtrak</td><td>Regional authority with Amtrak + track owners</td><td colspan="4">Amtrak in conjunction with track owners</td></tr>
<tr><th>Maintenance</th><td>Outsourced to NEC MSC but uses Amtrak Labor</td><td colspan="2">Amtrak</td><td>Amtrak</td><td>Amtrak or other parties (Boise Locomotive, BBD)</td><td colspan="3" rowspan="2">Amtrak</td><td rowspan="5">Amtrak</td></tr>
<tr><th>Ownership</th><td>Amtrak</td><td>Amtrak/state (Empire)</td><td>N/A</td><td colspan="2">Regional authority</td></tr>
<tr><th rowspan="3">Support Services</th><th>Cust. Acct. Control</th><td colspan="3" rowspan="3">Amtrak</td><td colspan="2" rowspan="3">Regional transit authority</td><td colspan="3">Amtrak</td></tr>
<tr><th>Marketing, Pricing & Sales</th><td rowspan="2">Amtrak in consultation with state/local government</td><td colspan="2" rowspan="2">Amtrak</td></tr>
<tr><th>New Service Dev</th></tr>
<tr><th rowspan="4">Infrastructure and Property</th><th>Design and Engineering</th><td colspan="4">Construction / engineering firms and Amtrak</td><td colspan="5">Class I’s, states, regional transit authorities. Contracting engineering firms</td></tr>
<tr><th>Maintenance</th><td colspan="3">Amtrak (except for portions owned by MBTA and CDOT)</td><td>Amtrak except for VRE service</td><td>Regional authorities</td><td colspan="4">Amtrak does station maintenance, other parties maintain the track and infrastructure</td></tr>
<tr><th>Construction</th><td colspan="9">Construction / engineering firms</td></tr>
<tr><th>Ownership</th><td colspan="3">Amtrak except some portions of NEC</td><td>Transit authority / Amtrak</td><td colspan="5">Class I’s, states, regional transit authorities own the track, some stations and infrastructure. Amtrak owns some stations</td></tr>
</table>

The Network Manager would respond to private and state/local initiatives to operate specific services, and also could proactively offer specific services to private investors and operators.



Note: Color coding indicates the scope of the bundle.

This structure incorporates the positive features of rail privatizations that have occurred worldwide, while avoiding the difficulties encountered by Railtrack in the United Kingdom.

- Private operation of passenger and freight services worldwide has led to substantial improvements in customer service, increases in traffic, and decreases in cost (and thus decreases in government subsidies).
- In the UK, the train operating and equipment companies established during the privatization of British Rail have been highly successful, although the track operating company (Railtrack) encountered difficulties.
  - This blueprint for Amtrak provides for operating and equipment companies similar to those established in the UK. These companies have been successful, significantly increasing ridership, reducing or eliminating government subsidies, and introducing new passenger equipment on many services.
  - Railtrack was originally established as a *private* owner and operator of infrastructure. It was unable to fund and manage the upgrading and maintenance required to increase capacity and meet new safety requirements imposed by the government. Railtrack has recently been placed into reorganization proceedings, and it is currently being reorganized as a public entity that will use private contractors.
  - This blueprint establishes a *public* owner for the NEC from the start. This public owner would hire private firms to operate and maintain the property. This structure should avoid the problems encountered by Railtrack, while gaining the benefits of private operation and maintenance.
- The structure described in this blueprint builds on the successes in international privatization.

A newly formed Acela Company would own the Acela brand, train sets, and rights to operate premium, high speed service on the Northeast Corridor (NEC), including the right to provide regional feeder services (e.g., NE Direct).

End Customers

- Users of premium, high-speed Acela Service

Mail / Express Co.

Sources of Funding

- Ticket revenue
- On-board service revenue
- Share of station revenue
- Subsidies if local or state governments choose to fund services
- Share of revenue from any mail / express service provided

$

Acela Company

Scope / Description	Estimate of Operating Statistics
• Private for-profit operator of Acela Service and regional feeders • Provides on-board services	• Revenue: $271.2M, FY 2000 • Ridership: 2.6MM, FY 2000 (includes Metroliner service that will be partially replaced by emerging high-speed service)
Inherited Amtrak Assets / Property Rights	**Value Creation for Incumbents**
• Acela brand • Right to operate high-speed train sets on the Northeast Corridor and regional feeders • Owns the Acela train sets	• Profits from increasing passenger revenues and managing costs • Increase in passenger non-farebox revenue • Improved service • Subsidy elimination / reduction • Gain from sale of franchise

$

Subcontracting Parties

NEC Asset Co

- Track access

Maintenance Companies

- Maintenance of Acela train sets

Notes: Financial estimates do not include interest, depreciation or capital improvements. Operating statistics for FY 2000 are based on pro-rated estimates. Value creation estimate is calculated as NPV of 10-year operating cash flows before interest and depreciation and assumes availability of federal subsidies for the restructuring period of FY1-FY3. FY 2001 data includes financials for Metroliner Service and does not include Acela Regional.
Source: Amtrak FY2000 Annual Report; Amtrak Reform Council, February 2002

The NEC's demographics and physical characteristics are similar to those of Japan Rail Central, suggesting that the Acela Company should be profitable on an operating basis and should be able to contribute to the capital required to improve Acela service and transit times.

Comparison Item	JR Central Tokaido Shinkansen	Amtrak Northeast Corridor
• **Corridor**	• **Tokyo~Nagoya~Osaka**	• **Washington DC~New York~Boston**
– Route Length (miles)	– 322 (Tokyo~Nagoya 214)	– 457 (DC~NY 226)
– Track	– Dedicated double track	– Non-dedicated track
– Power	– Electrified (AC 25kV)	– Electrified (AC 12kV, 25kV)
• **Demographics**	• **Japan**	• **United States**
– **Metropolitan Area Population**	– **53,972,095 (1995)**	– **40,079,419 (1998)**
• **Operation**	• **Nozomi, Hikari, Kodama**	• **Acela/Metroliner**
– Maximum Speed	– 169 mph (270 km/h)	– 150 mph
– **Frequency**	– **285 trains / day**	– **27 trains / day**
– Travel Time Between Destinations	– 2:30 (Tokyo~Nagoya 1:36)	– 6:33 (DC~NY 2:42)
– Fare (Business Class)	– $113 (Tokyo~Nagoya $87)	– $164 (DC~NY $146)
– Annual Passengers	– 130,500,000 (2001)	– 2,652,000 (2001)
– Annual Revenue	– $7,169M (2001)	– $271.2M (2001)

JR Central currently operates without subsidies

One or more additional concessions should be granted by the Network Manager to provide non-premium intercity passenger service on the NEC.

End Customers

- Users of conventional intercity services

Mail / Express Co.

Sources of Funding

- Ticket revenue
- On-board service revenue
- Share of station revenue
- Some subsidies if local or state governments choose to fund services
- Share of revenue from mail / express service

$

Other NEC Services

Scope / Description	Estimate of Operating Statistics
• Private for-profit operator of non-premium conventional services • Operates trains with brand (or brands) independent of Acela • Provides on-board services	• Revenue: $434.2M, FY 2001 • Ridership: $10.8 MM, FY 2001
Inherited Amtrak Assets / Property Rights	**Value Creation for Incumbents:**
• Right to operate non-premium trains on the Northeast Corridor	• Profits from increasing passenger revenues and managing costs • Increase in passenger non-farebox revenue • Improved service • Subsidy elimination / reduction • Gain from sale of franchise

$

Subcontracting Parties

NEC Asset Co

- Track access

Leasing Companies

- Own and manage non-premium service locomotives and cars

Maintenance Companies

- Maintenance of Acela train sets

Notes: Financial estimates do not include interest, depreciation or capital improvements. Operating statistics for FY 2000 are based on pro-rated estimates. Value creation estimate is calculated as NPV of 10-year operating cash flows before interest and depreciation and assumes availability of federal subsidies for the restructuring period of FY1-FY3. FY 2001 data includes financials for Acela Regional service.
Source: Amtrak FY2000 Annual Report; Amtrak Reform Council, February 2002

A government owned, but privately managed, NEC Asset Company would own the NEC. It would set and collect access fees for services that operate over the NEC. It would subcontract operation and infrastructure maintenance.

End Customers

Acela Company

Non-premium service concessionaires

Commuter Service Operators

- Freight railroads
- Commercial customers at stations

Sources of Funding

- Current Sources:
  - Communication fees on ROW
  - Commuter fees
  - Freight access fees
  - Revenue from stations
- Federal or multi-state capital + operating subsidies
- New sources
  - Acela and non-premium train access fees

$

NEC Asset Company

Scope / Description

- Government retains ownership of right-of-way
- Private sector operates the NEC and maintains the facilities
- Access fees set to cover operating and maintenance expenses not covered by other sources (including subsidies)

Estimate of Operating Statistics

Revenue: $182.9M FY 2000 (access fees, reimbursables, retail space, etc.)

Inherited Amtrak Assets / Property Rights

- NEC right-of-way
- All NEC tracks and associated assets
- All NEC stations
- Access rights on portions of NEC owned by other parties (MBTA etc.)

Value Creation for Incumbents

- Cost savings on overhead (scheduling, track management)
- Cost saving on track maintenance by outsourcing
- Capital investment minimization
- Real estate development
- Retail and advertising revenues

$

Subcontracting Parties

One or several maintenance companies

- Outsourcing of track / station construction / maintenance

Notes: Financial estimates do not include interest, depreciation or capital improvements. Operating statistics for FY 2000 are based on pro-rated estimates. Value creation estimate is calculated as NPV of 10-year operating cash flows before interest and depreciation and assumes availability of federal subsidies for the restructuring period of FY1-FY3.
Source: Amtrak FY2000 Annual Report; Amtrak Reform Council, February 2002

State and local authorities should award current Amtrak commuter service contracts in the NEC and elsewhere to new contractors.

End Customers

- Regional transit authorities
- Fare-paying customers

Sources of Funding

- Municipalities
- Transit authorities
- Farebox

$

Multiple Concessions for Commuter Service

Scope / Description

- Same scope of existing Amtrak commuter concessions (maintenance may be outsourced to third parties)

Inherited Amtrak Assets / Property Rights

- All existing assets associated with current concessioning service

Estimate of Operating Statistics

- Revenue: $274.0M in FY 2000
- Ridership: 61.6M in FY 2000

Value Creation for Incumbents

- Improved financial performance due to ridership increase and management of costs
- Improved service
- Reduced subsidies

$

Subcontracting Parties

NEC Asset Company

- Access fees: For those services operating on the Northeast Corridor

Rolling Stock Maintenance Companies

- Maintenance contracts

Notes: Financial estimates do not include interest, depreciation or capital improvements. Operating statistics for FY 2000 are based on pro-rated estimates. Value creation estimate is calculated as NPV of 10-year operating cash flows before interest and depreciation and assumes availability of federal subsidies for the restructuring period of FY1-FY3.
Source: Amtrak FY2000 Annual Report; Amtrak Reform Council, February 2002

Intrastate intercity services should be franchised by individual states or interstate compacts.

End Customers

- Service sponsors (states or interstate compacts)
- Fare-paying customers

Mail / Express Co.

Sources of Funding

- Fares from passengers
- Federal subsidies
- State and local subsidies
- On-board services revenue
- Mail / express revenue related to service

$

Intrastate and Regional Corridor Train Operating Concessionaires

Scope / Description

- State and local governments select and design services
- State and local governments fund services, with federal contribution
- State and local governments select concessionaires
- Can include high-speed corridors

Inherited Amtrak Assets / Property Rights

- Retains rights to run on either NEC or Class I tracks
- Retains name of service, brand, and customer franchise
- Retains rights to use rolling stock

Estimate of Operating Statistics

- Revenue: $143.7M in FY 2001
- State subsidy: $116.0M in FY 2001
- Ridership: 6.0M in FY 2001

Value Creation for Incumbents

- Improved financial performance due to ridership increase and management of costs
- Improved service
- Reduced subsidies
- Coordination with regional and state transportation and development plans

$

Sub Contracting parties

Rolling stock Maintenance Co

- Maintenance contracts

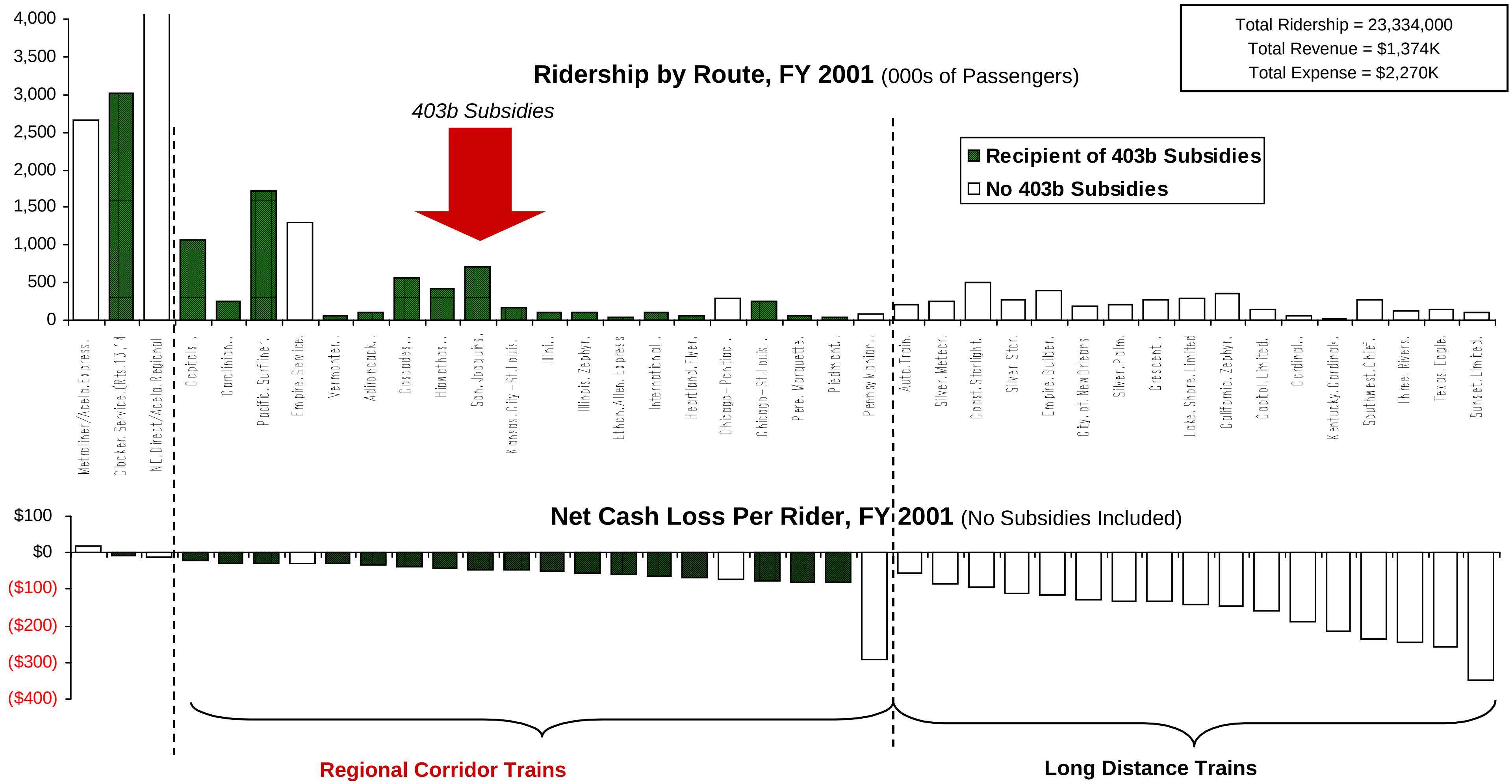
Rolling Stock Ownership Co

- Leasing of rolling stock

Notes: Financial estimates do not include interest, depreciation or capital improvements. Operating statistics for FY 2000 are based on pro-rated estimates. Value creation estimate is calculated as NPV of 10-year operating cash flows before interest and depreciation and assumes availability of federal subsidies for the restructuring period of FY1-FY3.
Source: Amtrak FY2000 Annual Report; Amtrak Reform Council, February 2002

Blueprint for private operation of passenger rail service

Intrastate and other regional corridor services currently require a wide range of subsidies. All now lose money, although some losses are small. Private operation should result in substantial reduction of required subsidies.



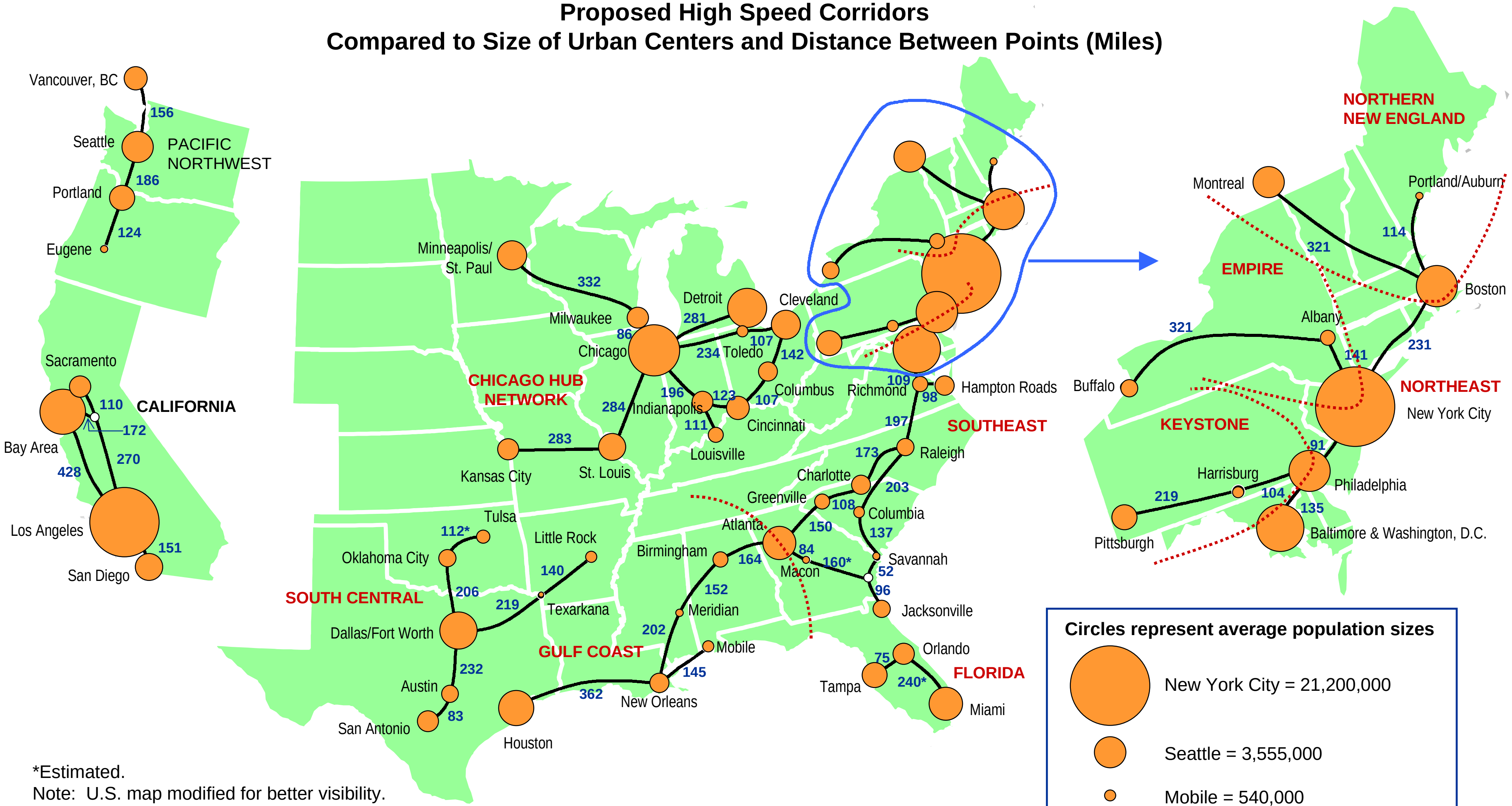
403b Act = The law that created Amtrak in 1971 provided for trains beyond a national network if a state covered a portion of the operating deficit. Illinois was one of the first states to take advantage of this provision and supports so-called Section 403(b) trains on four routes radiating from Chicago's Union Station.

Source: Amtrak Reform Council, Mercer analysis.

Note: Adapted from information provided by Amtrak to the Amtrak Reform Council.

In addition to existing services, proposed high speed corridors would be developed under concession agreements, which could include DBOT public-private financing provisions.

Proposed High Speed Corridors
Compared to Size of Urban Centers and Distance Between Points (Miles)



*Estimated.
Note: U.S. map modified for better visibility.
Source: U.S. 2000 Census, high speed corridor websites, Mercer analysis.

Interstate intercity (long distance) services should be franchised by the Network Manager without federal subsidies to private operators.

End Customers

- Fare-paying customers
- In some cases, service sponsors (e.g., states)

Mail / Express Co.

Sources of Funding

- Passenger fares
- On-board services revenue
- Subsidies (if provided by sponsors for specific services)
- Mail / express revenue related to service

$

Long-Distance Interstate Service Concessions

Scope / Description

- Network manager awards concessions
- Services are operated on a for-profit basis providing train "experience" (e.g., Rocky Mountain Express, Wagon Lits)
- Similar to a cruise - numerous options would be expected to emerge to satisfy market demand (educational, budget, luxury, etc.)
- States could subsidize local transportation services arranged with operator

Inherited Amtrak Assets / Property Rights

- Retains rights to run on either NEC or Class I tracks
- Retains name of service, brand, and customer franchise
- Retains rights to use rolling stock

Estimate of Operating Statistics

- Revenue:$524.7M in FY 2001
- State subsidy: $0M in FY 2001
- Ridership: 3.8M in FY 2001

Value Creation for Incumbents

- Innovative, high-quality services, tailored to specific markets, offered by companies experienced in entertainment and leisure service industry
- Elimination of federal subsidies
- Option for providing local transportation services en route under subsidy arrangements negotiated by states with operators and Network Provider[1]

[1] Local services may be eligible for regional corridor federal subsidy contribution

$

Subcontracting Parties

NEC Asset Co

- Access fees: For those services operating on the Northeast corridor

Rolling Stock Maintenance Co

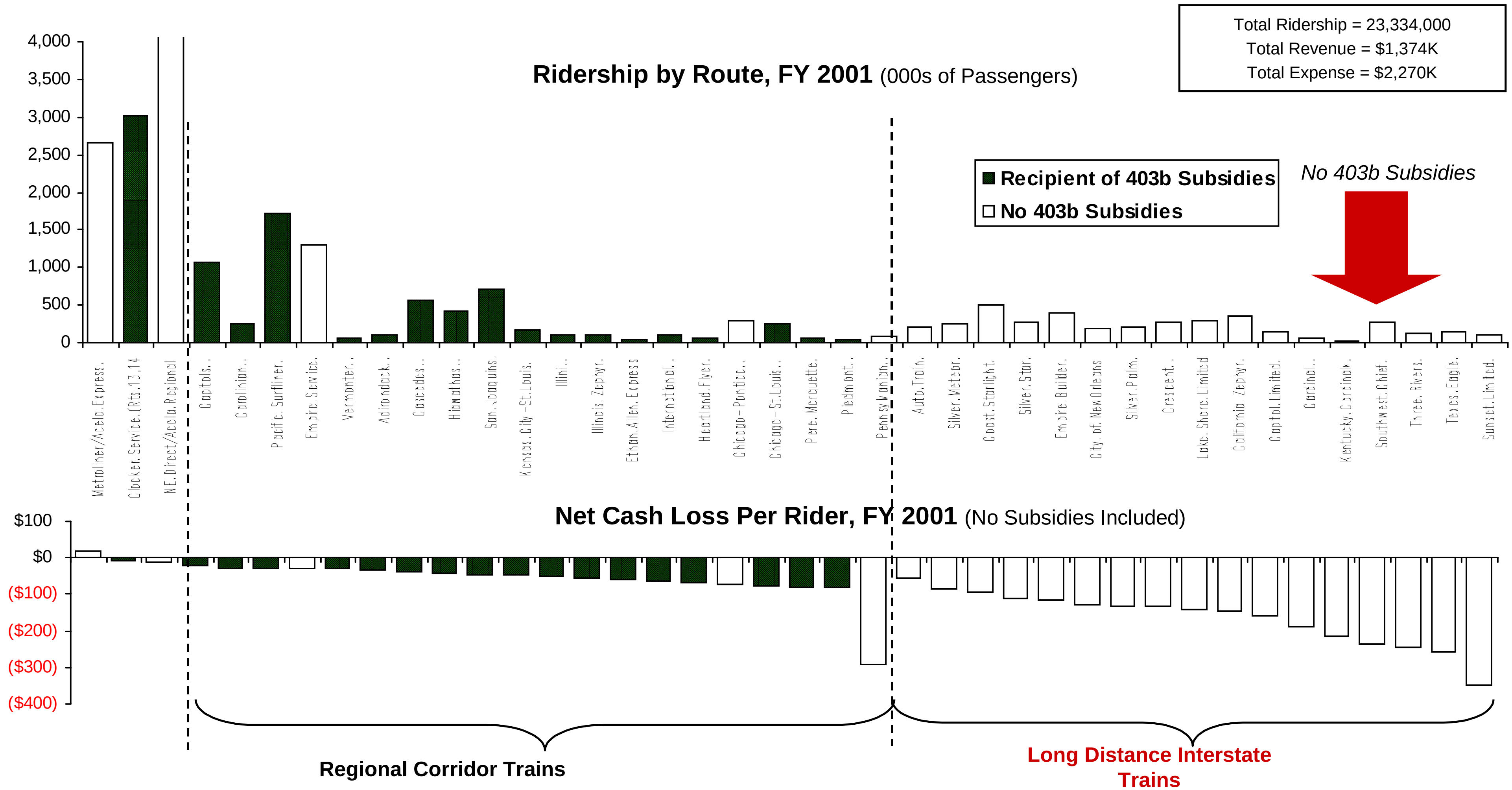
- Maintenance contracts

Rolling Stock Ownership Co

- Leasing of rolling stock

Notes: Financial estimates do not include interest, depreciation or capital improvements. Operating statistics for FY 2000 are based on pro-rated estimates. Value creation estimate is calculated as NPV of 10-year operating cash flows before interest and depreciation and assumes availability of federal subsidies for the restructuring period of FY1-FY3.
Source: Amtrak FY2000 Annual Report; Amtrak Reform Council, February 2002

Long-distance interstate services generally generate much larger losses than regional corridor trains. They can be restructured as for-profit "experience" trains.



403b Act = The law that created Amtrak in 1971 provided for trains beyond a national network if a state covered a portion of the operating deficit. Illinois was one of the first states to take advantage of this provision and supports so-called Section 403(b) trains on four routes radiating from Chicago's Union Station.

Source: Amtrak Reform Council, Mercer Analysis.

Note: Adapted from information provided by Amtrak to the Amtrak Reform Council.

Amtrak's mail and express services should be concessioned to a private operator.

End Customers

- US Postal Service and express shippers

Sources of Funding

- Fees paid by US Postal Service and express shippers

$

Mail/Express Company

Scope / Description

- Network manager awards concession
- Services are operated on a for-profit basis using NEC, intrastate, and interstate passenger

Inherited Amtrak Assets / Property Rights

- Retains rights to run on either NEC or Class I tracks
- Retains name of service, brand, and customer franchise
- Retains rights to use rolling stock

Estimate of Operating Statistics

- Revenue:$122.1M in FY 2000
- State subsidy: $0 in FY 2000

Value Creation for Incumbents

- Cost reduction
- Operation of service on a commercial basis
- Possible integration with concessionaire's other businesses

$

Subcontracting Parties

NEC Asset Co

- Access fees: For those services operating on the Northeast Corridor

Rolling Stock Maintenance Co

- Maintenance contracts

Rolling Stock Ownership Companies

- Leasing of rolling stock

Notes: Financial estimates do not include interest, depreciation or capital improvements. Operating statistics for FY 2000 are based on pro-rated estimates. Value creation estimate is calculated as NPV of 10-year operating cash flows before interest and depreciation and assumes availability of federal subsidies for the restructuring period of FY1-FY3.
Source: Amtrak FY2000 Annual Report; Amtrak Reform Council, February 2002

Unbundling of Amtrak's other assets would create numerous additional opportunities for private investment.

	Rolling Stock Maintenance Companies	Equipment Leasing Companies	Track Maintenance Companies	Real Estate Managers/Station Operators
Scope / Description	• Serves all train operators	• Rolling stock ownership and lease management (except Acela trains)	• Maintenance and upgrading of NEC and non-NEC tracks / signals and stations	
Inherited Amtrak Assets / Property Rights	• May or may not acquire existing maintenance facilities and related parts inventory	• Acquires ownership of rolling stock (except Acela trains)	• Does not own track or operating rights	
Value Creation for Incumbents	• Lower maintenance costs • Better parts inventory • Better availability/reliability • Revenue from penalties	• Lower asset ownership costs • Lower overhead • Better asset utilization	• Lower maintenance costs • Lower overhead • Potential bidding for DBOM[1]/operating contracts	

[1]Design, build, operate, maintain

While introducing private operation to passenger railroads will require substantial short-term efforts, it will create many long-term benefits.

Benefits

- Introduction of competition and innovation in the U.S. passenger rail marketplace
- Introduction of world-class, "best-in-front" rail operators from U.S., Europe, and Asia
  - Passenger operations
  - Equipment maintenance
  - Infrastructure maintenance
  - Real estate management
  - Etc.
- Potential for introduction of new technologies
- Better service that is more sensitive and tailored to customers and the needs of various stakeholders
- Substantial cost savings
- Rationalization of federal subsidy process
- Market will direct funds to areas of greatest public and private return

Disadvantages

- Time and effort required for transition process
- Possibility that some services may be too expensive to continue
- Possibility of labor displacement if Amtrak employees are not hired by new operators

Contents

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2000 revenue: $4.8 B

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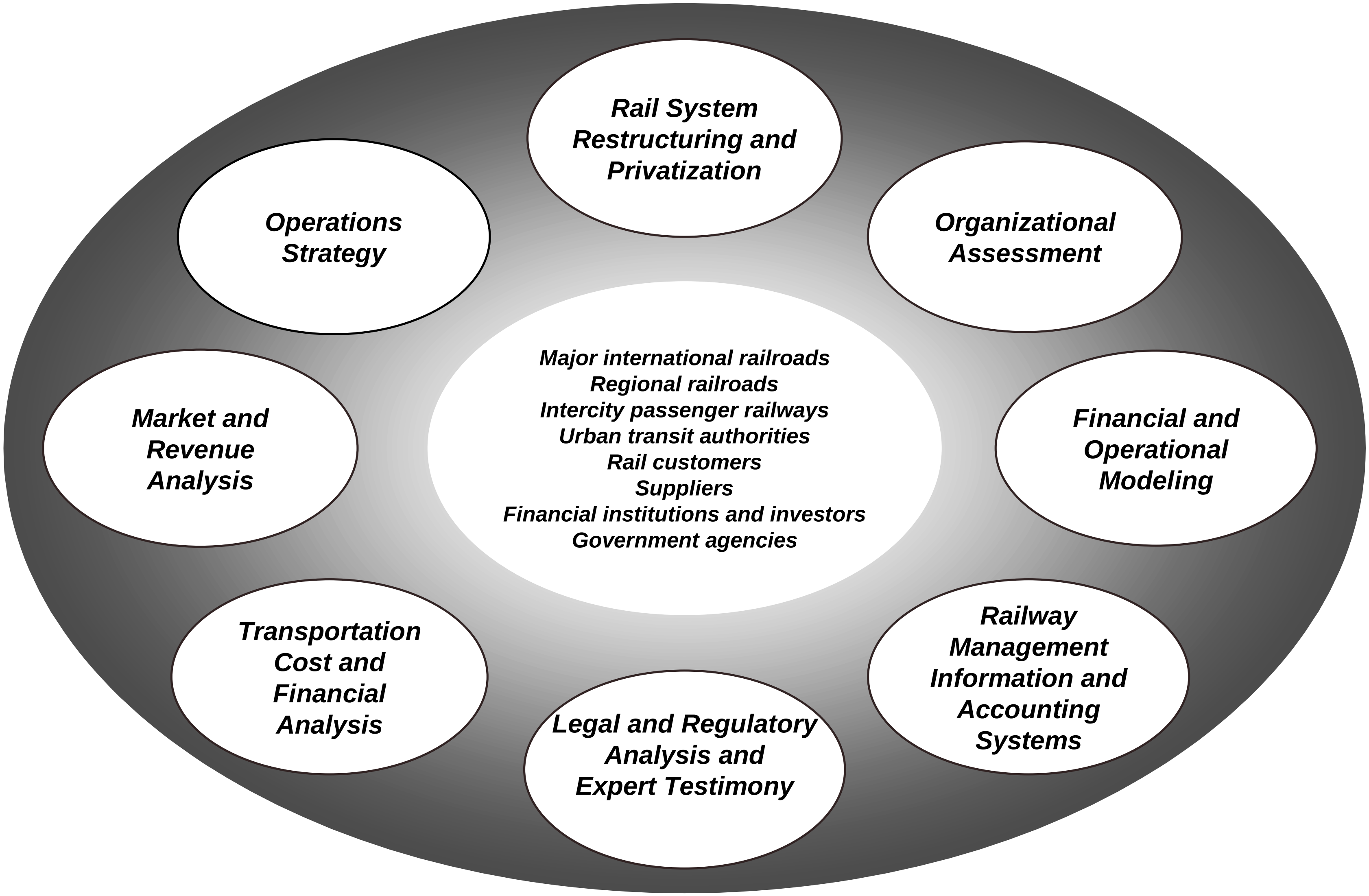

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Mercer Management has extensive experience in market analysis and new business design for both railway service providers and rail suppliers internationally.

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Rail System Restructuring, Commercialization, and Privatization	● • British Rail and successor companies • Czech Rail (CD) • Deutsche Bahn • OBB (Austria) • Polish State Railways (PKP) • Russian Railways • SNCF	● • Amtrak • Norfolk Southern • CS First Boston • CSX • NICTD • Regional Transportation Authority (Chicago) • Southern Pacific	● • Confidential international banking organization • Ferrocarriles Argentinos • Government of Argentina, Columbia, Guatemala, Mexico, Uruguay (separate projects) • Private Brazilian commuter franchisees	● • New Zealand Railways • Private Investor (Indonesia) • Private Investor (Malaysia) • Spoornet (South Africa) • State Rail Authority (New South Wales) • Government of Hong Kong • Government of Western Australia
Financial and Operational Modeling	● • British Rail • EC/European Union • London Underground • OBB (Austria) • Polish State Railways (PKP)	● • Association of American Railroads • BNSF • Canadian National • CSX • Goldman Sachs • Long Island Rail Road • Morgan Stanley	● • Confidential international banking organization • FEPSA (Argentina) • Ferrocarriles Argentinos • Government of Mexico • Government of Uruguay • Government of Peru • Government of Guatemala	● • American President Lines • National Rail Corp. (Australia) • New Zealand Railways • Queensland Rail • State Rail Authority (New South Wales) • Kowloon-Canton Railway Corp. (Hong Kong)
Transportation Cost and Financial Analysis	● • Hungarian State Railway (MAV) • Major international equipment suppliers • Polish State Railways (PKP) • SNCF	● • BNSF • CSX • GE Railcar • Southern Pacific	● • Ferrocarriles Argentinos • Government of Chile • Major industrial railway • Government of Mexico • Government of Uruguay • Government of Peru • Government of Guatemala	● • Australian National Lines • CITI-Rail Sydney • National Rail Corp. (Australia) • Spoornet (South Africa) • Victorian PTC
Market and Revenue Analysis	● • Hungarian State Railway (MAV) • Major int'l leasing corporation • Major int'l railway equipment corporation • CGEA Transport	● • EMD • BNSF • GATX • GE Locomotive • Union Pacific • CGEA Transport	● • Ferrocarriles Argentinos • Int'l locomotive manufacturer • Major Brazilian corporation • Supervia (Brazil) • Government of Mexico • Government of Uruguay • Government of Peru • Government of Guatemala	◐ • New Zealand Railways • Spoornet (South Africa) • MTRC (Hong Kong)
Operations Strategy	● • British Rail • FEN Mechanica • Polish State Railways (PKP) • Russian Railways • SNCF	● • BNSF • GATX • GE Locomotive • Long Island Rail Road • Southern Pacific	◐ • Government of Mexico • Major international financial institutions • Government of Peru • Government of Guatemala • FSA (Brazil) • MRS Logistics (Brazil)	◐ • State Rail Authority (New South Wales) • V-Line Railway (Australia)
Organizational Assessment	● • CSX/Sea-Land • Hungarian State Railway (MAV) • London Underground • Russian Railways	● • Amtrak • BNSF • Grand Trunk Western • New York Port Authority	◐ • FEPSA (Argentina) • Government of Mexico • Government of Uruguay	◐ • CITI-Rail Sydney • State Rail Authority (New South Wales)
Railway Management Information and Accounting Systems	◐ • London Railway • Polish State Railways (PKP) • Russian Railways	● • CNW-UP • UP / SP • Southern Pacific • Canadian National • Canadian Pacific • CSX	○ • FEPSA (Argentina) • FSA (Brazil)	◐ • National Rail Corp. (Australia) • National Railways of Zimbabwe • New Zealand Railways • State Rail Authority (New South Wales)
Legal and Regulatory Analysis and Expert Testimony	● • Hungarian State Railway (MAV) • Polish State Railways (PKP) • Russian Railways	● • BNSF • CSX • GTW • Southern Pacific • Wisconsin Central	◐ • Government of Argentina • Government of Mexico • Major government-owned railway	◐ • State Rail Authority (New South Wales • Major Australian industrial company

Key: ● More than 10 engagements by Mercer staff over last five years ◐ 6 to 10 engagements by Mercer staff over last five years ○ 1 to 5 engagements by Mercer staff over least five years

Mercer has wide experience working in the UK rail industry...

Passenger

- Regional railways strategy review
- Virgin defence
- InterCity service modifications
- Franchising case studies
- Design of competitive regime

Trainload

- Portfolio rationalization strategy
- Identification of efficiency reserves and process re-engineering

Intermodal

- Confirmation of Speedlink closure
- Freightliner restructuring plan
- Channel Tunnel strategy

Privatization

- Detailed viability reassessment
- Cost of extraction
- Number and structure of further initiatives
- Ability to reconcile sale and competition
- Support of Freightliner privatization process
- Access charging issues

Other

- Potential for Irish combined transport via Channel Tunnel

Approaching 300 man-months of cumulative experience

… and elsewhere in the world.

Poland/Czech/Hungary	• Restructuring/commercialization, including analysis of network profitability, competitive scenarios, etc
Mexico/Argentina/ South Africa	• Restructuring, concessioning, privatization, public policy and competitive issues • Performance improvement (S. Africa and Argentina Commuter rail)
MTRC (Hong Kong)	• Ridership improvement on airport service • Strategy development prior to IPO
New Rail Operators/ Rolling Stock Companies	• Market mapping/entry strategy in rail, bus • International leasing strategy

…and an in-depth experience of rail markets, economics, competition and restructuring in Europe and the United States ...

Amtrak	• Turnaround strategy (commercial, financial) • Product re-design for North-East corridor
US Class 1 Railroads	• Network strategy, commercial strategy pricing and customer relationship management • Strategy for alliances and mergers
Deutsche Bahn	• Strategy to compete in concessioning of regional rail • Business re-design for wagonload network
SNCF	• Strategy review for TGV Grandes Lignes • Customer segmentation strategy
Eurostar	• Product/service improvement strategy • Evaluation of feasibility of a Eurostar service to Heathrow
SBB / OBB	• Production strategy for international hub/intermodal • Restructuring of maintenance; growth strategy for infrastructure maintenance

Contents

Situation Leading to Privatization

- All freight, passenger, and commuter services provided by Government-owned Ferrocarriles Argentinos (FA)
- Severe under-investment in the rail system
- Inefficiency and poor management
- Falling demand
- Poor safety and reliability
- Subsidies reaching $1.3B versus revenues of $500M
- Distressed economy: Hyperinflation and high fiscal debt

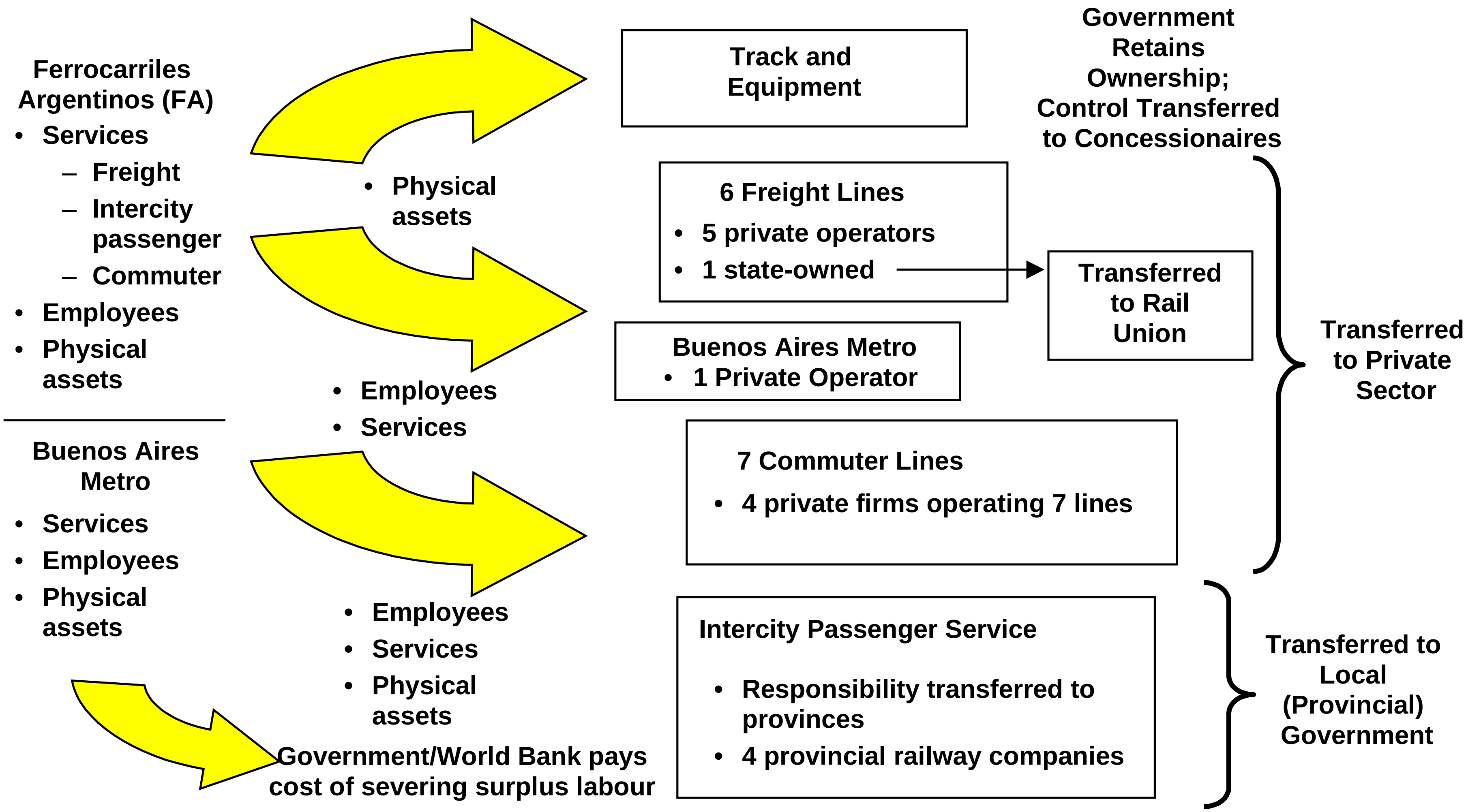
Objectives:

- Reduce subsidies
- Improve service and operational performance
- Attract international expertise
- Retain Government control of physical assets

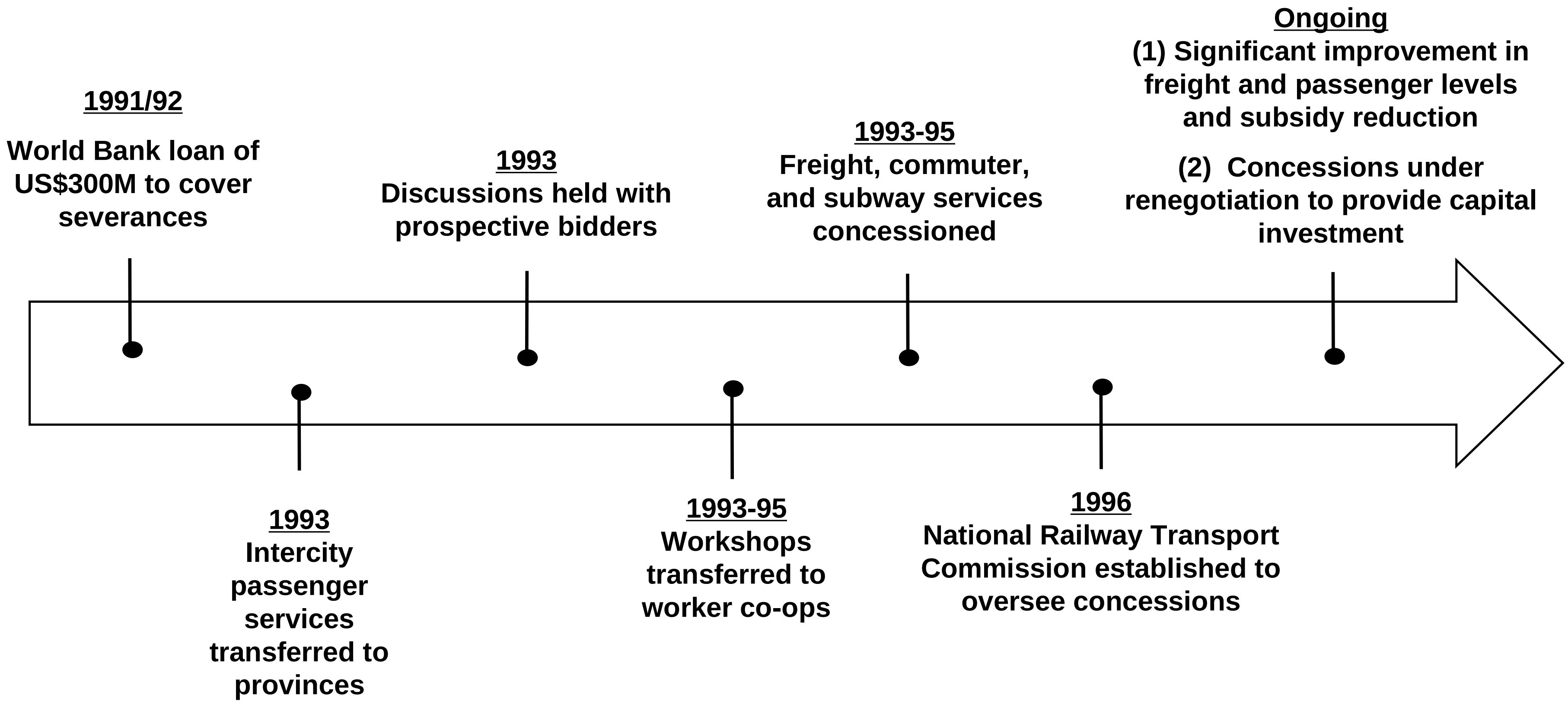
Approach:

- Geographically distinct, vertically integrated operating concessions
  - 6 freight, 8 passenger
- Government retains ultimate ownership of infrastructure and equipment
  - Concessionaires control assets
  - Specified re-investment programme
- Government/World Bank funded labor severance programme

Privatization Structure



Timeline



1991/92
World Bank loan of US$300M to cover severances
1993
Intercity passenger services transferred to provinces
1993
Discussions held with prospective bidders
1993-95
Workshops transferred to worker co-ops
1993-95
Freight, commuter, and subway services concessioned
1996
National Railway Transport Commission established to oversee concessions
Ongoing
(1) Significant improvement in freight and passenger levels and subsidy reduction
(2) Concessions under renegotiation to provide capital investment

Terms: *Freight*

30-year concessions plus 10-year renewal option

Maximum freight rates

Access fees for intercity passenger operations

No mandated access for competing freight operations

All investments funded by concessionaires

Government retained 16% share; employees given 4% share

Terms: ***Commuter/Metro***

10-year concessions for commuter; 20-year for metro

Unlimited renewals if Government and concessionaires agree

Concessionaires not required to accept employees from FA

Fare cap tied to inflation; Government has authority to change

Minimum service and performance levels contractually defined

Government funds pre-specified infrastructure and rolling stock investment

Any additional investments funded by concessionaires

Results

Successes

- Subsidies eliminated for freight and intercity passenger
- Operating subsidies for commuter/metro services reduced from $300M to $50M
- Freight growth (1990-2000):
  - Volume +59%
  - Tons/employee +830%
- Passenger growth (1993-2000):
  - Commuter passengers +125%
  - Passengers/employee +253%
- Attractive severance reduced employment by 82% with minimal disruption
- Responsibility for track investment and operations kept together, eliminating conflicts

Challenges

- Planning did not fully appreciate competitive response by truckers
  - Good news - Freight rates are well below maximum allowed
  - Bad news - Some freight franchises struggling financially
- Unrealistic investment requirements:
  - Some freight investment requirements set too high to be commercially sustainable
  - Metro concession renegotiated to allow higher tariffs in return for increased investment and longer concession period
  - Commuter concessions renegotiating to provide more investment in return for longer concession period

Results: *Labor*

	State-owned 1990	Concessionaires 2000	Percent Change
Freight			
Employees (000)	31.4	5.3	-83%
Tonnage (millions)	11.1	17.6	+59%
Tons per employee	353	3,292	+830%
Employee per km of network	1.15	0.24	-79%

	State-owned 1993	Concessionaires 2000	Percent Change
Commuter Passengers			
Employees (000)	12.0	7.6	-37%
Paying passengers (millions)	212	476	+125%
Passengers per employee	17,670	62,300	+253%
Employee per km of network	15.8	10.1	-36%

Contents

Situation Leading to Privatization

- Government-owned Ferrocarriles Nacionales de Mexico (FNM) provided all freight and passenger services
- High subsidies, inefficiency, poor service quality
  - Operating losses and government subsidies > $125M
- Limited internal restructuring (1992-94) fell short of required results
- Peso devaluation/economic crisis forced newly elected Government to turn to privatization
  - Also need to make transport competitive to take advantage of NAFTA

Objectives:

Maximize funds for government finances

Reduce subsidies

Introduce private sector efficiencies/service responsiveness/investment

Get railway off the government's hands

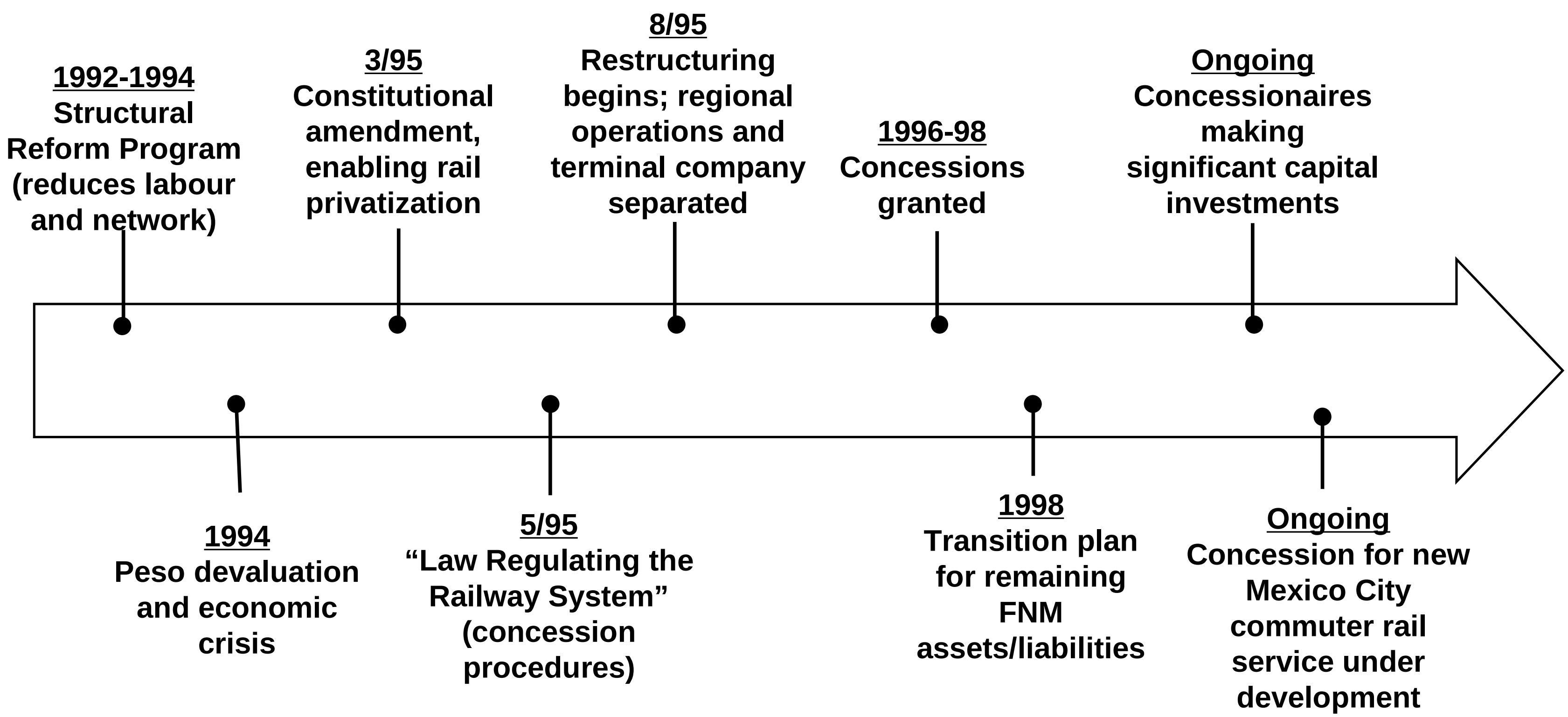
Approach:

Three vertically integrated 50 year freight concessions

– Five light density concessions

Government retains ownership of infrastructure

Timeline


1992-1994
Structural Reform Program (reduces labour and network)
3/95
Constitutional amendment, enabling rail privatization
8/95
Restructuring begins; regional operations and terminal company separated
1996-98
Concessions granted
Ongoing
Concessionaires making significant capital investments
1994
Peso devaluation and economic crisis
5/95
“Law Regulating the Railway System” (concession procedures)
1998
Transition plan for remaining FNM assets/liabilities
Ongoing
Concession for new Mexico City commuter rail service under development

Key features of the privatization process

Action	Goal
• Three “shadow” railroads formed internally	• Adopt commercial principles to prepare for privatization
• Detailed legislation/regulation in place	• Give bidders a firm legal framework
• FNM CEO personally supervised labour relationships	• Address labor concerns early • Reduce political issues and ease transition
• Concession structure defined based on input from potential bidders	• Generate high quality bids and maximize sale proceeds • Structure concessions to be attractive to bidders • Ensure proposed industry structure will work
• Bidding process closely managed – Concessions phased – Contact/negotiations with bidders	• Maximize sale proceeds • Reduce bidder uncertainty

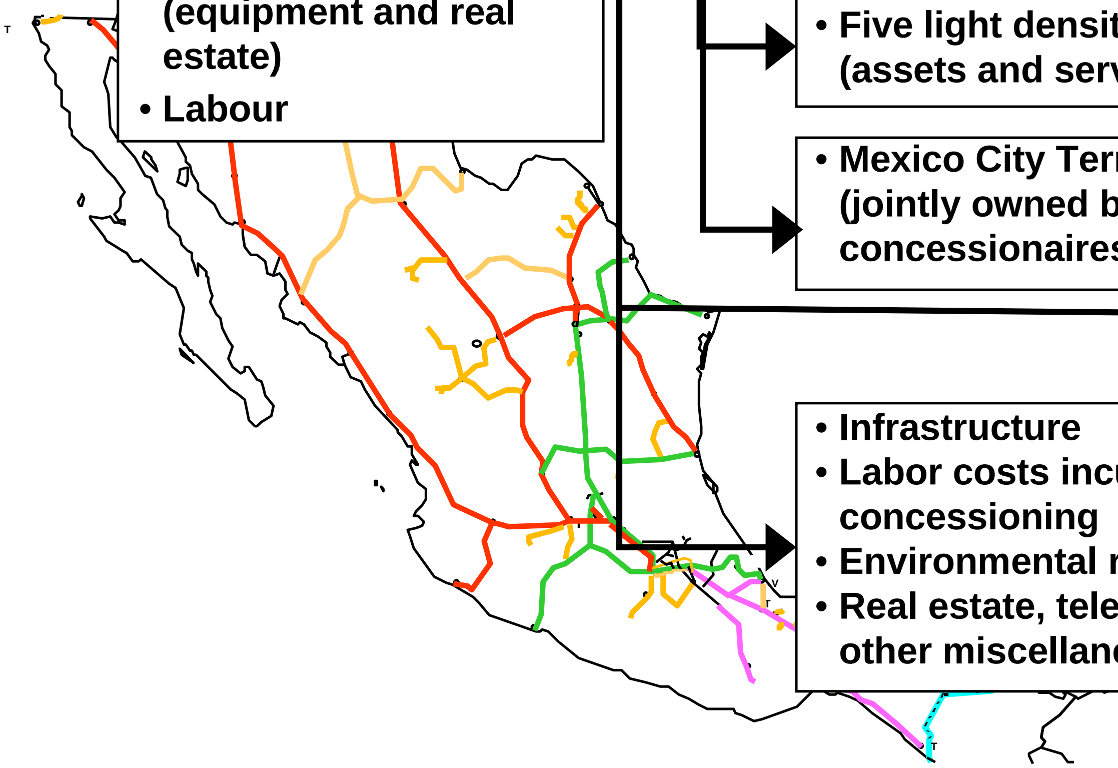
Privatization Structure

Ferrocarriles Nacionales de México (FNM)
- Freight services
- Passenger services
- Physical assets (equipment and real estate)
- Labour

Transferred to Private Sector for US$2.5B+:
- Three vertically integrated linehaul concessions (assets and services)
- One regional concession (assets and services)
- Five light density line concessions (assets and services)
- Mexico City Terminal Company (jointly owned by three linehaul concessionaires)

Mexico City commuter service concession under development

Retained by Government[1]:
- Infrastructure
- Labor costs incurred prior to concessioning
- Environmental remediation costs
- Real estate, telecom network, and other miscellaneous assets



[1]Remaining assets may be sold or concessioned.

Terms of freight concessions

Minimum 51% ownership by Mexican companies required

50-year concessions with option for 50-year renewal

Equipment included in concessions

Government retains infrastructure

Minimal Government regulation and control

Results

Successes

- Government received more than $2.5 billion in cash
- Freight subsidies of more than $700MM per year eliminated
- “Rail Renaissance”
  - Freight traffic grew by 49% (1995-2000)
  - International freight traffic grew by 77%
- Aggressive five-year private investment programs (US$ 1.3B) to grow traffic
- Proactive management of labour issues, fair buy-out provisions and higher wages for remaining workers led to strong co-operation and buy-in by labour unions
- Responsibility for track investment and operations kept together, eliminating conflicts

Challenges

- Failure to fully develop institutional infrastructure for inter-railroad cooperation before privatization has led to conflicts between railroads
- Some shippers have been slow to change their government-operation era perceptions of railroad service
- First bidding ended in failure when bids did not meet the government’s minimum target
  - Good news - Government strongly signaled that it would not accept less than fair value
  - Bad news - Temporary setback at the beginning of the process

Contents

The privatization of JNR was undertaken in three steps.

Step 1 — **Preparation for privatization**

Step 2 — **Restructuring after privatization**

Step 3 — **Gradual stocks listing**

Complete privatization

1983 Start of restructuring program

- Discontinuing unprofitable lines
- Suspension of new employment

1987

Privatization and division into 7 railway companies

1993 **JR East** (2.5 million of 4 million stocks)

1996 **JR West** (1.354 million of 2 million stocks)

1997 **JR Central** (1.366 million of 2.24 million stocks)

1999 **JR East** (0.5 million of 4 million stocks)

2002 (Expected)

Complete transfer of government stocks of **JR East**, **JR Central** and **JR West to public**

Ownership

Government owns JNR.

Ownership

Government owns shares of 7 privatized railway companies.

Ownership

JR East, **JR Central** and **JR West**

100% public

JR Hokkaido, **JR Shikoku**, **JR Kyushu** and **JR Freight**

100% government

JNR undertook significant restructuring efforts in 1981-1986 to prepare for the privatization of rail.

Labor Cuts

- JNR had suspended the new employment since 1983.
- To reduce the labor force, JNR carried out
  - Improvement of work method (cut of administration staff, raising efficiency of train crew
  - Modernization of facility (centralized train control, automatic signaling system, ticket vending machine, automatic ticket gate, maintenance facility, etc),
  - Change of service quality (making station unattended, putting freight stations together, etc)
  - Outsourcing (station work, rolling stock maintenance work, etc).
- JNR cut over 200 thousand employees.

Asset Upgrading and Capital Conservation

- 83 rural lines (3,157.2km) were abandoned by FY1989.
- JNR replaced old locomotives and passenger cars with modern diesel cars.
- JNR suspended construction of previously approved new lines.

Restructuring of Freight Operations

- JNR promoted ‘through train service’ which connect between 2 stations directly.
- Excess freight cars were abandoned.

JNR was divided into 6 regional passenger railway companies and 1 nationwide freight company.

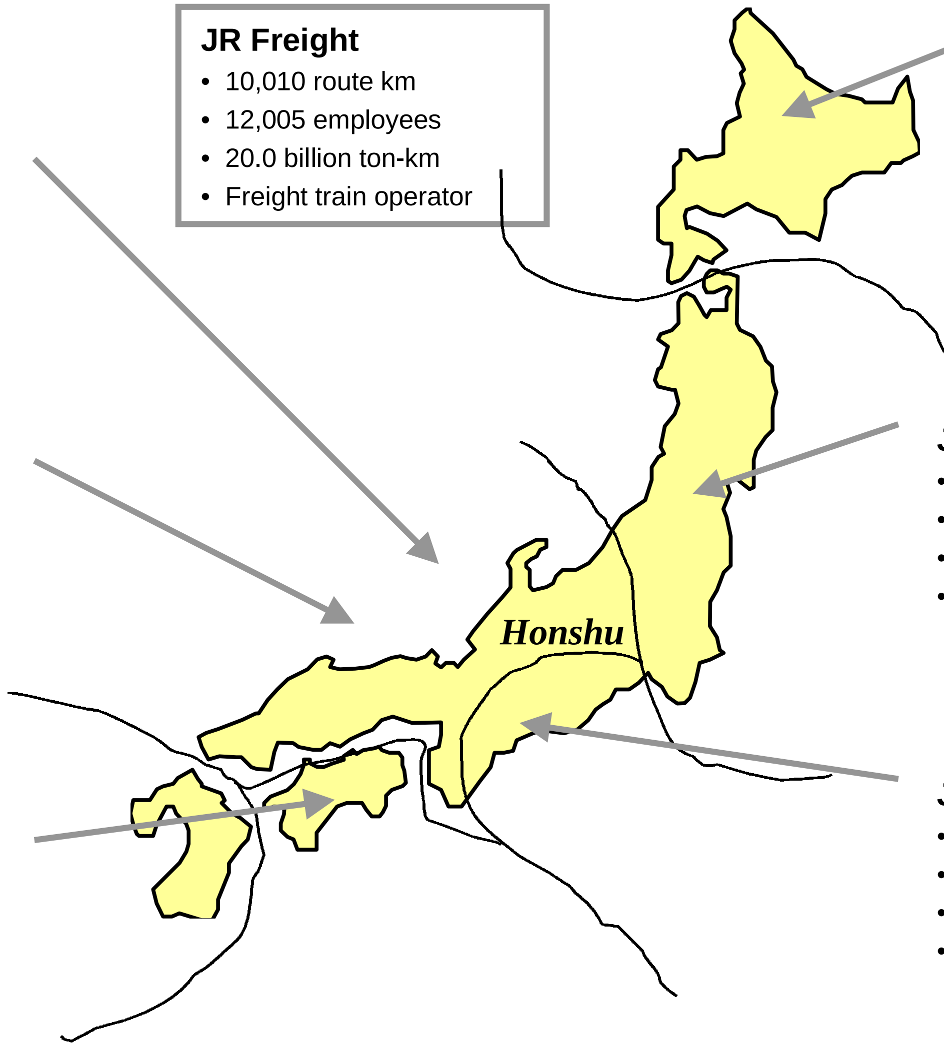
JR Freight
- 10,010 route km
- 12,005 employees
- 20.0 billion ton-km
- Freight train operator

JR Hokkaido
- 3,176 route km
- 12,719 employees
- 3.9 billion passenger-km
- Conventional lines only

JR West
- 5,325 route km
- 51,538 employees
- 45.8 billion passenger-km
- Sanyo Shinkansen

JR Kyushu
- 2,406 route km
- 14,589 employees
- 7.7 billion passenger-km
- Conventional lines only

JR Shikoku
- 880 route km
- 4,455 employees
- 1.7 billion passenger-km
- Conventional lines only



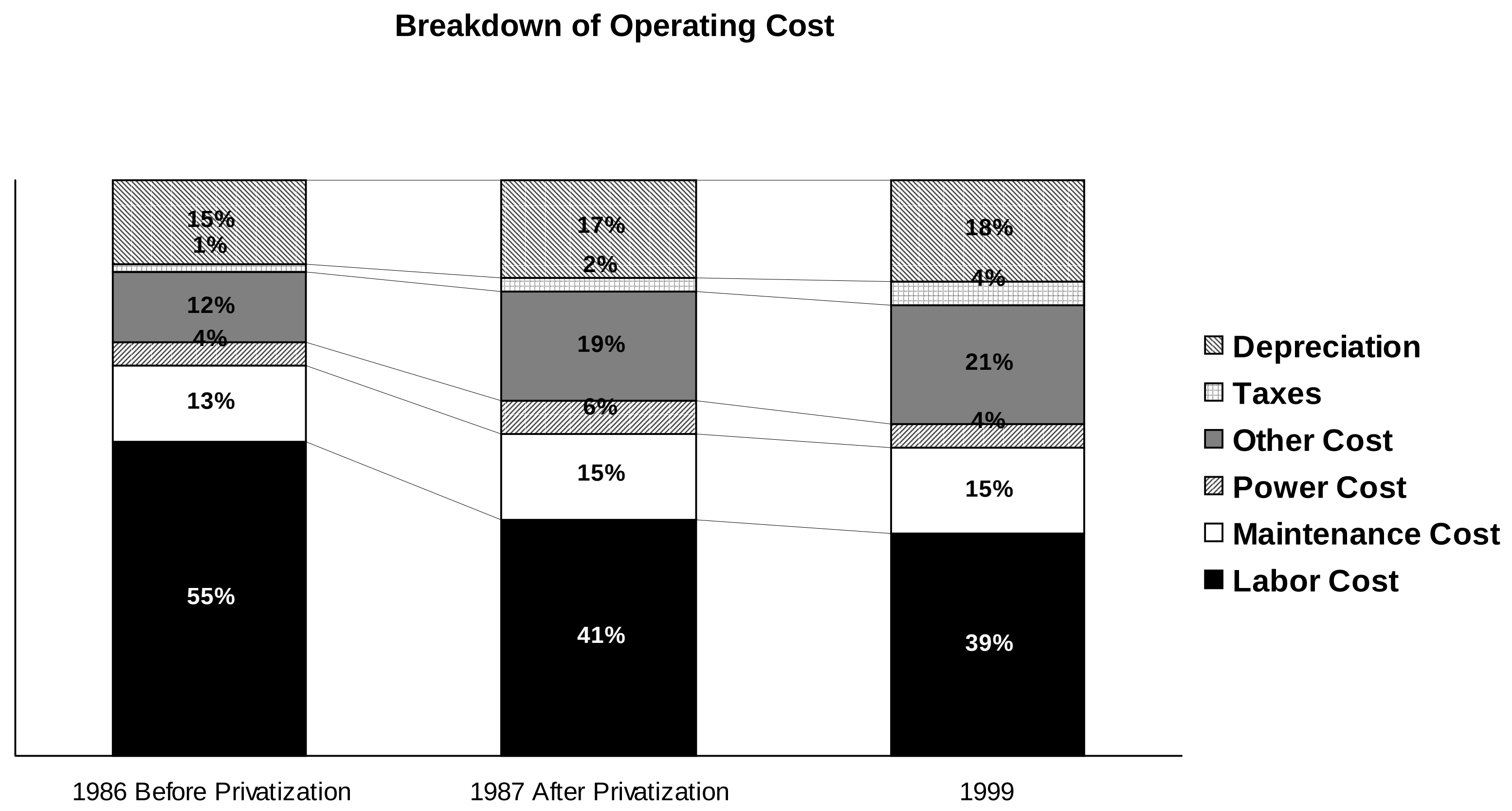
JR East
- 7,657 route km
- 82,469 employees
- 104.5 billion passenger-km
- Tohoku and Joetsu Shinkansen

JR Central
- 2,003 route km
- 21,410 employees
- 41.1 billion passenger-km
- Tokaido Shinkansen

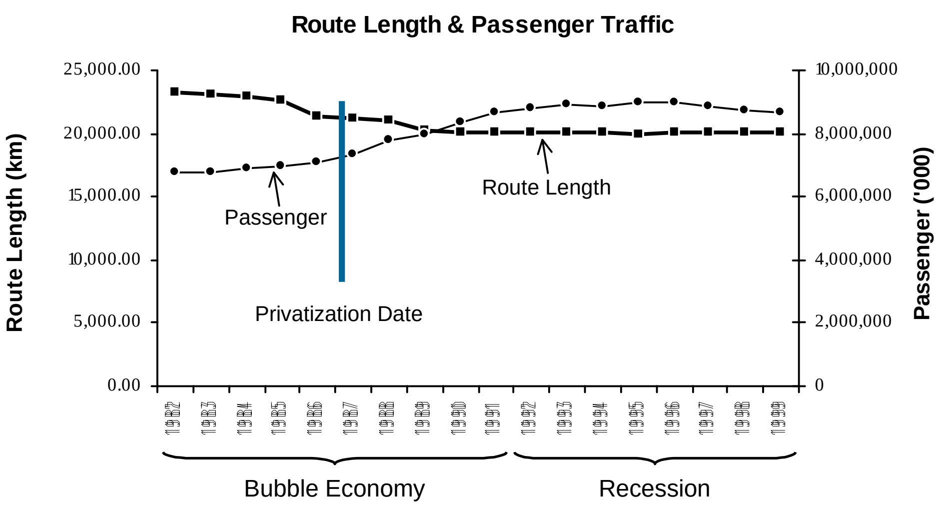
JNR’s infrastructure was handed over to each regional passenger railway company except for Shinkansen infrastructure which was to be leased to JR East, JR Central and JR West.

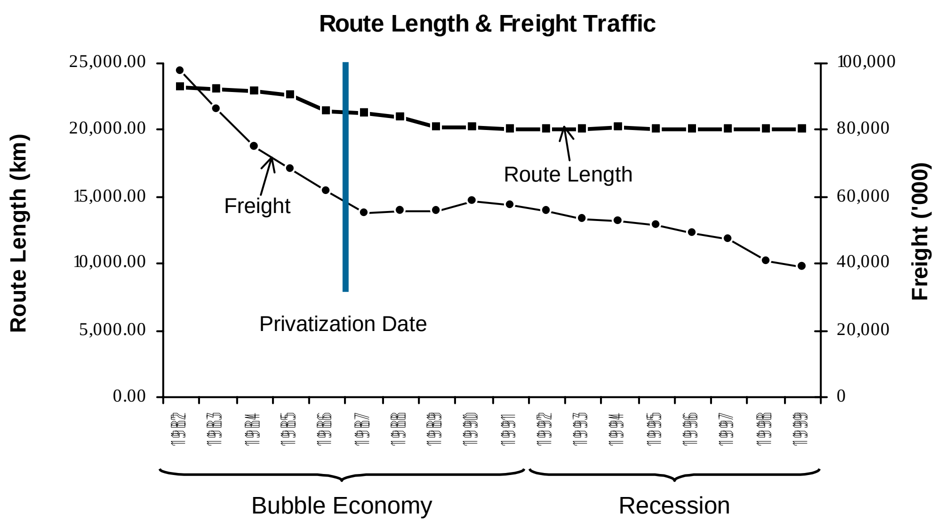
	Passenger Service on Conventional Lines	**Passenger Service on Shinkansen Lines**	**Freight Service**
Infrastructure Owner	• Each train operator	• Shinkansen Holding Corporation(SHC) • Each train operator pays asset **lease fee** to SHC.	• JR Freight owns assets for its exclusive use only. • JR Freight pays **access fee** to asset owners.
Train Operator (Rolling Stock Owner)	• Each passenger railway company(JR Hokkaido, JR East, JR Central, JR West, JR Shikoku and JR Kyushu)	• JR East, JR Central and JR West in Honshu	• JR Freight
Maintenance (Infrastructure and Rolling Stock)	• Each train operator	• Each train operator	• JR Freight maintains only its own property.
	JNR was divided into 6 passenger railway companies geographically.	**4 Shinkansen lines were to be operated by 3 companies separately.**	**JR Freight was established as a nationwide freight service operator.**

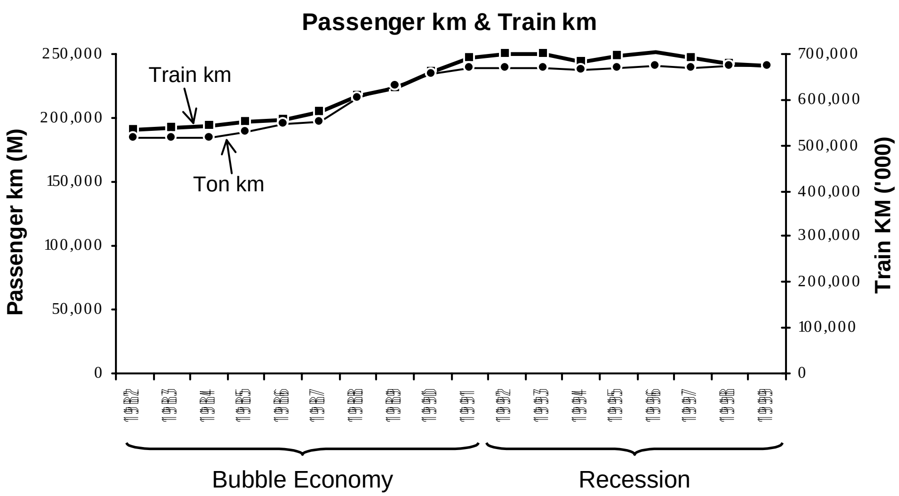
JNR decreased the ratio of labor cost in total operating cost, mostly through labor cuts.

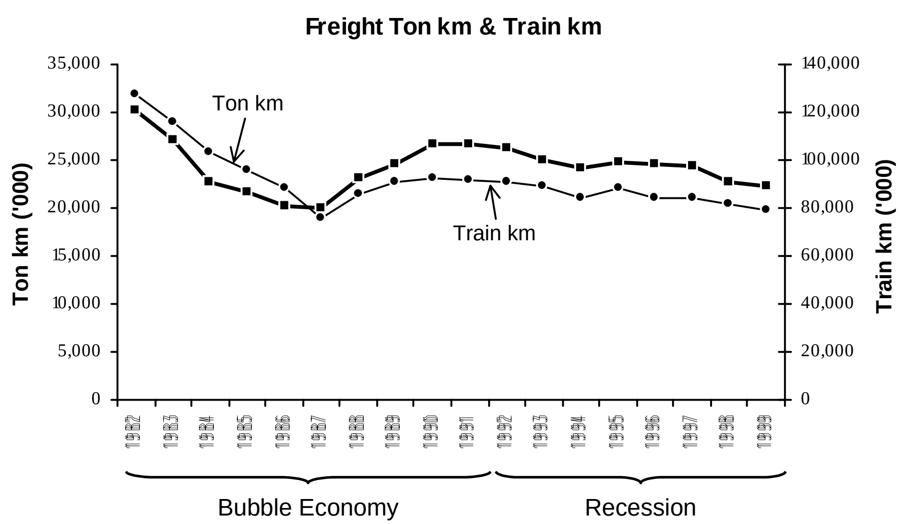


After privatization, the number of passengers increased significantly and freight traffic remained stable despite significant route shedding and a recessionary economy.









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